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# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

VOL. XXX. (*New Series.*) JANUARY 3RD, 1914. No. 598.

## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**Special Features of the Current Issue of the "Review."**

THE current issue of the REVIEW contains several features of a retrospective nature which will be found to be more than ordinarily interesting. The details concerning the past year's petroleum import trade have been carefully compiled, and give one a clear idea of the immense strides which the consumption of petroleum products is making in the United Kingdom, but these would have been far more bulky if only it had been permissible to include the quantities of liquid fuel imported for Admiralty needs, and which now run into approximately 200,000 tons yearly. As it is, however, quite apart from our Admiralty trade, this country has imported during the past year over 420,000,000 gallons, a record for this country. The diagrams of prices given in this issue are also of direct interest, whilst the list of new oil tankers launched during the twelve months points to the remarkable expansion which the petroleum industry is witnessing. It is interesting to mention here the fact that the REVIEW has made arrangements in the various fields of the world whereby special articles will be regularly supplied from our field correspondents, and these, authentic as they will be, must considerably add to the value of the REVIEW.

◆

**A Substitute for Petroleum.**

A MOST important announcement has just been made by Dr. David T. Day, the Chief of the Geological Survey of the United States, and is to the effect that a substitute for petroleum, containing all the qualities of first-grade oil, such as is pumped from the largest wells of the United States and Mexico, has been manufactured by scientists of the Geological Survey. Dr. Day made this announcement while speaking before a meeting of the members of the Franklin Institute, and though the matter is yet the secret of the Government department, he emphatically declared that the marketing of this petroleum substitute would have great effect upon the oil markets of the world. We hope to make a further announcement upon this matter in an early issue, and have already got into communication with our friend Dr. Day with this end in view.

◆

**The Oilfields of Sakhalin.**

OF the numerous company meetings held during the present week in London none to our mind have such importance attaching to them as is the case in connection with the meeting of the Sakhalin Oil Fields, Ltd., which is fully reported elsewhere. The enormous change which will be wrought in the oil markets of the East by the commercial exploitation of Sakhalin's petroleum wealth must of necessity possess an importance of its own, for at the present time the opening up of new oil-producing lands in that portion of the Russian Empire will give an impetus to the consumption of petroleum products not easily appreciated. The fact that to-day petroleum products for that portion of the Eastern hemisphere have to be transported several thousand miles from Baku, is in itself suggestive of the immense openings which await the advent of Sakhalin oil, but in addition to that its use as liquid fuel for the railways—which to-day have to depend upon wood—will revolutionise matters in that part of the globe. All pioneer oil companies have more than their fair share of difficulties, and the Sakhalin Oil Fields, Ltd., has been no exception, but to-day the atmosphere is clear, and in the future operations will be shorn of the majority of their past troubles, only a little patience being required in order to fully establish the potential claims of Russian Sakhalin as a prolific field for petroleum production.

◆

**The "British" Rotary Drilling Machine.**

THE advent of a British-made rotary oil-drilling machine marks the commencement of such an important era in drilling for oil that we make no apology for referring to the matter editorially, though it is unusual in these columns to refer to the specialities of our advertising friends. The rotary drilling machine to-day has made such a name for itself in the majority of the world's oilfields that the marketing of a British-made rotary has only been a question of time. A few years ago the making of drilling tools and apparatus in this country was quite unknown: it was only when Mr. W. L. Mackenzie, now the responsible chief of the Oil Well Engineering Company, Ltd., erected his first works at St. Albans—works now the home of the Perkins Macintosh Petroleum Tool and Boring Company's specialities—that serious efforts to establish a boring tool manufacturing industry in this country were put forth. The success which attended Mr. Mackenzie and his associates is too well-known to need comment here; the present immense factory near Manchester speaks eloquently of this. It comes as little surprise, therefore, to find that the Oil Well Engineering Company has now, in conjunction with Mr. John Wells, gone a step further, and is to-day manufacturing several types of "British" rotaries, to which reference is made elsewhere in this issue. Of a truth, there is room for all, and while trusting that the new rotary will soon make itself popular in the world's fields, we are sanguine enough to believe that with the continuous expansion of boring activities the older makers of rotary drilling machines will continue to enjoy that success which has in the past been so liberally meted out to them.

◆

## THE STANDARD OIL COMPANY'S DIVIDEND.

According to our New York correspondent the net earnings of the Standard Oil Company for the past year will be approximately 22 per cent. on the outstanding capitalisation. The shipments of oil during the year are reported to have been in the neighbourhood of 32,000,000 barrels.

◆

## DECEASE OF MR. J. A. JACOBSON.

We regret to announce the sudden death of Mr. J. A. Jacobson, of the Anglo-Terek Petroleum Company, Ltd., who was well-known in oil circles, being associated as he was with the various oil interests of Mr. Emil Deen, of the Hague. Mr. Jacobson left London shortly before Christmas on a journey to Russia, but was suddenly taken seriously ill and died at Grosny on the 29th ult.

◆

## MR. A. ADIASSEWICH IN CALIFORNIA.

The Review understands that Mr. A. Adiassewich, consulting engineer to the Russian Government, and in charge of the Baku Geological Bureau at St. Petersburg, is at present in the Californian fields studying geological conditions and drilling methods. In an interview a few days ago with a Press representative, Mr. Adiassewich stated that many of the drilling methods employed in California could be used with great advantage in the Russian fields.

◆

## THE COMING INTERNATIONAL OIL EXHIBITION.

We understand from Mr. G. D. Smith, the general organiser of the forthcoming World's Oil Industries Exhibition, which is to be held in London next March, that substantial progress is being made in regard to the allotting of space, and that from every point of view the exhibition already promises to be a great success. One of the latest important firms to conclude negotiations is the J. F. Lucey Company, who will exhibit their well-known "Parker" rotary and other drilling machines as well as oilfield supplies.

◆

**A Neat and Useful New Year's Gift.**—We have received from Mr. Ockenden, the British manager of the Oil Well Supply Company, a neat and exceedingly useful paper-weight in glass, bearing one of the popular and striking advertisements of this well-known company,

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended December 27th was 121,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended December 28th was 264,145 poods, or about 4,260 tons. The total production for the year from January 14th to December 28th was 13,206,440 poods, or about 213,007 tons. The total production for the corresponding period last year was 15,874,300 poods, or about 256,037 tons. Price of crude oil at Baku is now 37¼ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended December 27th was 18,620 poods, or 300 tons.

European Oilfields Corporation, Ltd. — The production for the week ended December 28th was 101,500 poods, or 1,637 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended December 27th was 118,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended December 27th was 23,055 poods (372 tons).

Maikop New Producers, Ltd.—Production for week ended December 27th was 6,400 poods (103 tons).

British Maikop Oil Company, Ltd.—Production for week ended December 28th was 12,334 poods, or 199 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended December 27th, 112,657 poods, or 1,817 tons.

North Caucasian Oil Fields, Ltd.—The latest production for week ended December 30th was 423,894 poods, or 6,837 tons. Corresponding period last year, 1,650 tons. Total production to date for this year, 139,230 tons; last year, 38,848 tons.

Bibi-Eibat Petroleum Company, Ltd.—Production for the week ended December 28th was 102,300 poods, or 1,650 tons.

Maikop Midland.—Production at Krimskaya for week ended December 27th was 6,200 poods, or 100 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended December 27th was 15,158 poods (244 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended December 27th was 1,260 poods (20 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended December 27th was 2,600 poods, or 42 tons.

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# The Petroleum Trade of England During 1913.

## A BRIEF STATISTICAL RETROSPECT.

*Special to the* Review.

The petroleum trade of the United Kingdom during 1913 established a record both in the quantities of the various products imported, and also in their value. Year by year our petroleum import trade is assuming greater importance until to-day it forms one of the most important and at the same time the most healthy of the branches of this country's commerce with foreign nations. We have only to go back a decade to see how wonderful has been this expansion, for while our total petroleum imports did not then exceed 270,000,000 gallons per annum, they have amounted during the twelve months just closed to no less a quantity than 424,000,000 gallons. But it is not only in regard to the quantity of products received that this country's petroleum trade has so remarkably changed its aspect. The imports some years ago was mainly confined, especially as regards lubricants, to a barrel trade, which had its great drawback both in regard to the expense entailed and the leakage which was necessarily suffered. To-day, however, every kind of petroleum product imported into our markets is carried in bulk by immense oil tankers, whose capacities range to over 15,000 tons, and discharge into the bulk storage installations which we find scattered round our coasts with far greater ease than was in past years associated with the handling of leaky barrels. The past twelve months has afforded remarkable evidence of the continued growth in the consumption of all petroleum products in these islands, and it is gratifying to find that this great trade has been accomplished without any of that cut-throat competition which marred it some years ago.

As we have said, the petroleum import figures for last year constitute a new record, and at the same time show an increase greater than that which was ever before been known in a single year. The total figures, approximately 424,000,000 gallons, are over 70,000,000 gallons in excess of the quantities imported during 1912, 80,000,000 gallons in excess of those received for the previous twelve months, and 110,000,000 gallons more than the total for 1910. Of last year's immense total almost two-thirds came from the United States, the remainder coming from the Far East, Russia, Roumania and Mexico, the latter country alone exporting more than three times the amount of her contribution for the previous twelve months.

We will now proceed to examine in some detail the various branches of this great import trade, noting carefully the increases in the various products imported and the countries of origin.

### The Illuminating Oil Trade.

The quantities of illuminating oil imported during the year have amounted to 157,000,000 gallons, or a total appreciably above that for many years past. For illuminating purposes there is no doubt that the tendency is toward decreasing consumption, but with the increasing use for kerosene in other directions—mainly for power purposes—there is no doubt as time goes on we shall see a continued expansion in the import of this class of oil. The kerosene carburettor has not yet made its successful *début* upon the English market, although it is certain that this will only be a question of time. As a matter of fact, motorists are already appreciating the fact that their running costs can be greatly reduced if only they can utilise a fair proportion of kerosene, and many there are who, owing mainly to the increased cost of motor spirit, now use not inconsiderable quantities of illuminating oil. In regard to the heavier forms of motor traction, illuminating oil is becoming quite popular, while the continued popularity of the ordinary oil engine is responsible for the consumption of ever-increasing quantities of kerosene. Of the total quantity of this product imported last year, over 120,000,000 gallons came from the States, Roumania coming second with a little over 20,000 000 gallons. Roumania has, in spite of the unrest in the Balkans, which for some weeks upset her shipping facilities, maintained her oil trade with this country, for last year's figures are approximately the same as for the two years previously. On the other hand, however, Russia with its 10,000,000 gallons of illuminating oil trade with the United Kingdom practically cut her proportion in one half during the past twelve months, while, during 1911, her exports to England were not less than 25,000,000 gallons of lamp oil. Russia's loss in this respect has been a distinct gain for the New Continent, for not only are the United States kerosene imports substantially increased, but Mexico has contributed during the twelve months nearly 6,000,000 gallons to the total.

### Motor Spirit Imports.

As was generally anticipated and as we prophesied at the commencement of the past twelve months our imports of motor spirits have exceeded 100,000,000 gallons or an increase of 20,000,000 gallons over the total figures for 1912. The enormous expansion in the consumption of motor spirit in this country stands out in its full significance when we mention that during the past three years the consumption of this product in the United Kingdom has more than doubled. The Dutch Indies claim the vast bulk of our motor spirit trade, and last year supplied about 52,000,000 gallons, but have not participated in the increased consumption to the extent enjoyed by other countries. America, which long ago lost her position as the chief supplier of benzine to the United Kingdom, is gradually regaining her hold, for, while during 1912, she supplied only 16,000,000 gallons, her quota during the past twelve months has been almost 24,000,000 gallons. Both Russia and Roumania are also increasing their exports of motor spirit to this country, and last year while Russia sent over 13,000,000 gallons, Roumania provided almost 6,000,000 gallons, both quantities being far above that contributed during the preceding twelve months. Roumania's share, in fact, was doubled, while in the case of Russia, her exports to the United Kingdom of motor spirit during the previous twelve months were only 5,000,000 gallons.

As for the future, there is no doubt that the consumption of motor spirit in this country will steadily continue to expand, and we anticipate during the present year an increase quite in proportion to that recorded for the past twelve months, though with slightly easier prices, due to new competition.

### The Lubricating Oil Trade.

Like every other branch of the petroleum import trade, that branch of lubricating oils is in a decidedly healthy state, and both prices and volume have been maintained during the past twelve months, the total for the period being over 65,000,000 gallons. There is a perceptible difference, however, in the position of the countries of origin. For instance, America, from which we receive the vast bulk of our lubricants, has during the past twelve months remitted less quantities than she did in the previous year, but, on the other hand, Russia has increased her proportion by nearly fifty per cent. Roumania has almost entirely dropped out of the market, her exports of lubricants to this country last year being one-tenth of what they were for the preceding twelve months. It is interesting to note that year by year the demand for really high-class lubricants continues to grow, for to-day the popularity of the high-speed engine necessitates a lubricant which shall be of the finest quality, and for which a good price will always be paid.

### Solar Oils and Liquid Fuel.

The one classification of petroleum products which during the past year has shown a diminution was that of solar oils, for during 1913 we imported 65,000,000 gallons, as compared with 73,000,000 gallons during 1912. The figures, however, are above those for the year 1912, and the slight deficit recorded during the past twelve months may safely be put down to hand-to-mouth buying owing to the prevailing high prices. Our solar oil import trade is almost exclusively carried on with the United States, though last year small quantities arrived both from Mexico and Roumania.

As to liquid fuel, our readers will already be aware of the marked progress which is being made in the consumption of oil fuel for power-raising purposes, and though during the year just closed prices were almost at a prohibitive level, due to the high crude oil quotations combined with the abnormal freight rates, this country's consumption of liquid fuel nearly doubled, for it was over 31,000,000 gallons, as compared with under 18,000,000 gallons for the previous twelve months. In this respect Mexico stands in the pre-eminent position, thanks to the energies of the Anglo-Mexican Petroleum Products Company, who are the distributors of Mexican oil fuel in the European markets. Roumania, however, is gaining headway, while increasingly larger quantities are coming from the United States. If one adds to these figures the enormous amounts which the British Admiralty consumes, it will be seen that the liquid fuel aspect of our petroleum import trade is to-day one of the most important.

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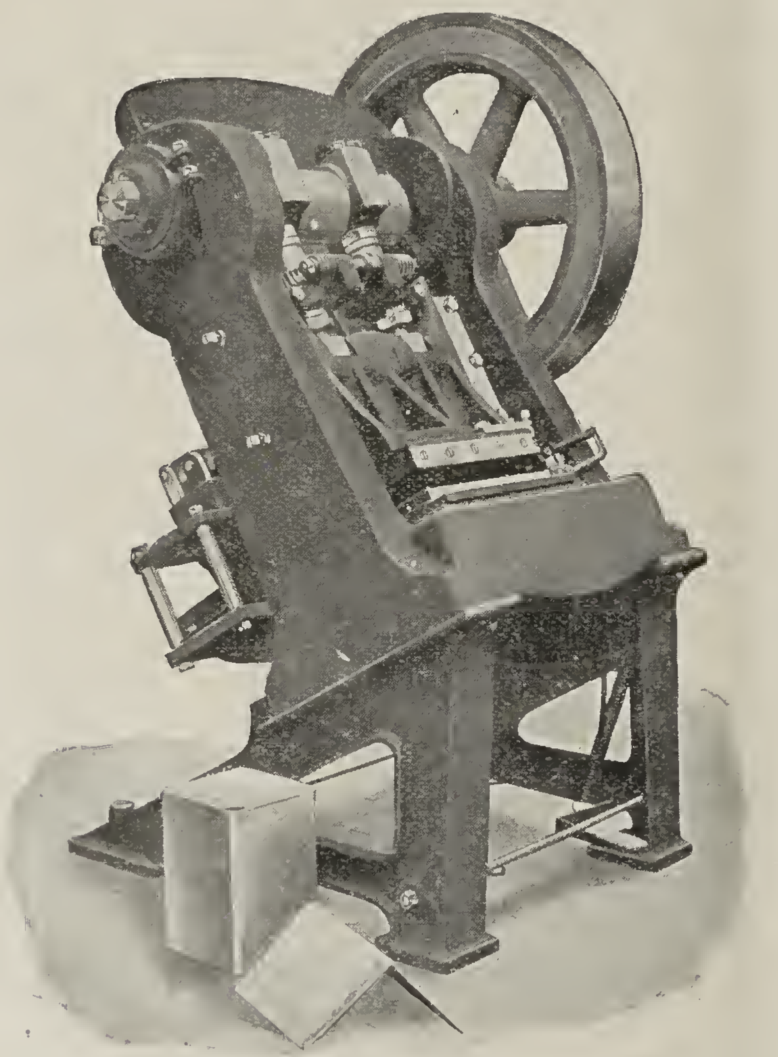

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# CRUDE OIL PRICES DURING 1913.

## RECORD FIGURES IN ALL PRODUCING COUNTRIES.

THERE has never yet been a year since the establishment of the world's petroleum industry when prices not only reached but maintained such a wonderfully remunerative level. No matter in which centre of crude oil production we look, the same highly satisfactory condition of things has prevailed, and as we write, bearing in mind primary causes for the present exceptional quotations, there seems no reason to anticipate a return of quotations to their former low levels.

The diagrams of crude oil quotations given upon other pages of this issue are so graphic that it is almost unnecessary to make any comment thereon. In the case of the American crude prices the past year has been a wonderfully profitable one for operators, not only in the high-grade oil-producing regions, but in the territories producing the lower grades of crude. A few years ago, when the American crude oil markets first commenced to appreciably strengthen, there were many who predicted Pennsylvanian crude at two dollars per barrel, but none ever imagined it would reach the figures at which it has stood during practically eleven months of the year. At the beginning of January the quotations were exactly two dollars per barrel for Pennsylvanian grades, as compared with 1.35 dollars ruling twelve months previously. Then in the middle of the month the crude oil market witnessed a five cent increase, and at the end of January, in the course of but a few days, the market experienced five advances of seven cents each, bringing the quotation to 2.40 dollars per barrel, while a few days later another five cent increase was recorded, at which figure—2.50—the market has remained up to the present time. All other grades have advanced in proportion, the present quotations showing an increase of from fifteen to twenty cents per barrel upon the ruling prices twelve months previously.

The Russian oil market has witnessed a year of exceptional prices, which promise to continue in spite of the present tendency to decline. At the commencement of the year crude oil on the Baku market was commanding 37 copecs per pood, at which figure it remained practically until the end of April, when it advanced to 39 copecs per pood, the first half of the year finishing with crude oil at 40 copecs. During the second half of the year, however, the Baku crude oil market witnessed several important increases, and during September for a few days crude oil was quoted at 57½ copecs per pood. The average for that month was 54½ copecs—a figure which constitutes a record on the Baku Exchange. Since the close of navigation crude oil prices have steadily decreased, until at the time of writing 39 copecs per pood is the prevailing figure, or about 2 copecs per pood more than the ruling quotation at the commencement of the year. Comparing the figures for the twelve months with those quoted during the preceding year, we find that the lowest prices in 1913 were the highest in 1912. During 1912 the Baku crude oil market underwent many changes, and prices fluctuated between 26 copecs per pood (in January) and 38 copecs in the early part of December.

The Roumanian oil market has remained strong throughout the past year. At the commencement of the year Bushtenari crude oil was quoted at approximately 50 francs per ton, but in the early months a sharp advance took place for all crudes, until Bustenari crude now realises 80 francs per ton, while Bana crude—which is recognised as the richest in the world on account of its high percentage of motor spirit—is quoted at over 100 francs per ton. In agreement with the crude oil prices the quotations for the refined products have consistently strengthened. At the commencement of the year refined oil was quoted, f.o.b. Constanza, at from 68 to 72 francs per ton; to-day the same oil realises from 93 to 95 francs; while heavy benzine, of a gravity of ·750, which a year ago was quoted at 140 francs per ton, is now 185 francs. Gas oil, too, has appreciated in price during the year, now being quoted at 80 francs per ton as compared with 50 francs at the beginning of 1913. The export trade of Roumania is in an exceedingly strong position, and with the completion of the trunk pipeline to Constanza a decided fillip will be given to Roumania's petroleum export trade.

The Austrian market during the year has been firm, and with the depletion of stocks and a declining production, there is every reason to believe that the present prices will even be increased in the not distant future. Crude oil is quoted at 8.50 kronen per 100 kilos as compared with the prevailing figure of 7.20 kronen at the commencement of 1913, but refined products, of which there is little on the market, are somewhat lower in price than twelve months ago.

◆

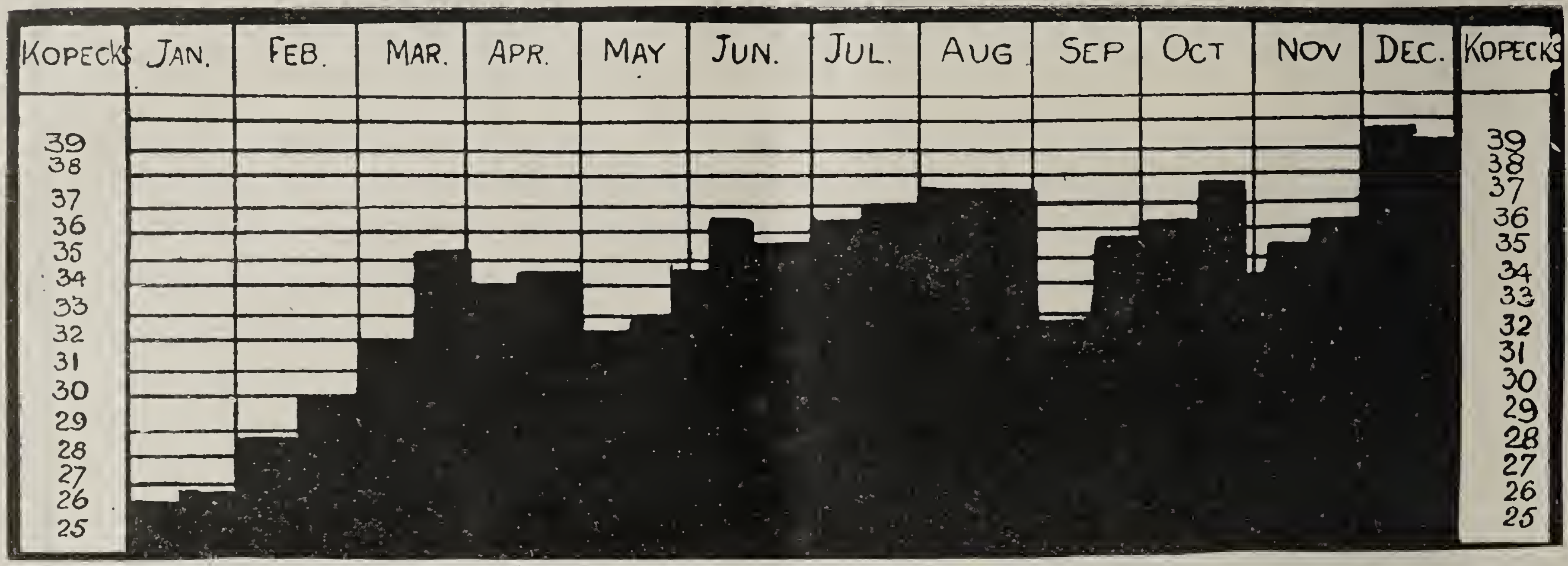
## ROUMANIAN PETROLEUM PRODUCTION DURING NOVEMBER.

THE production of petroleum on the Roumanian oilfields during November amounted to 140,000 tons, as against 167,500 tons obtained during October, showing a decrease of 27,500 tons. The production of the principal firms was as under :—

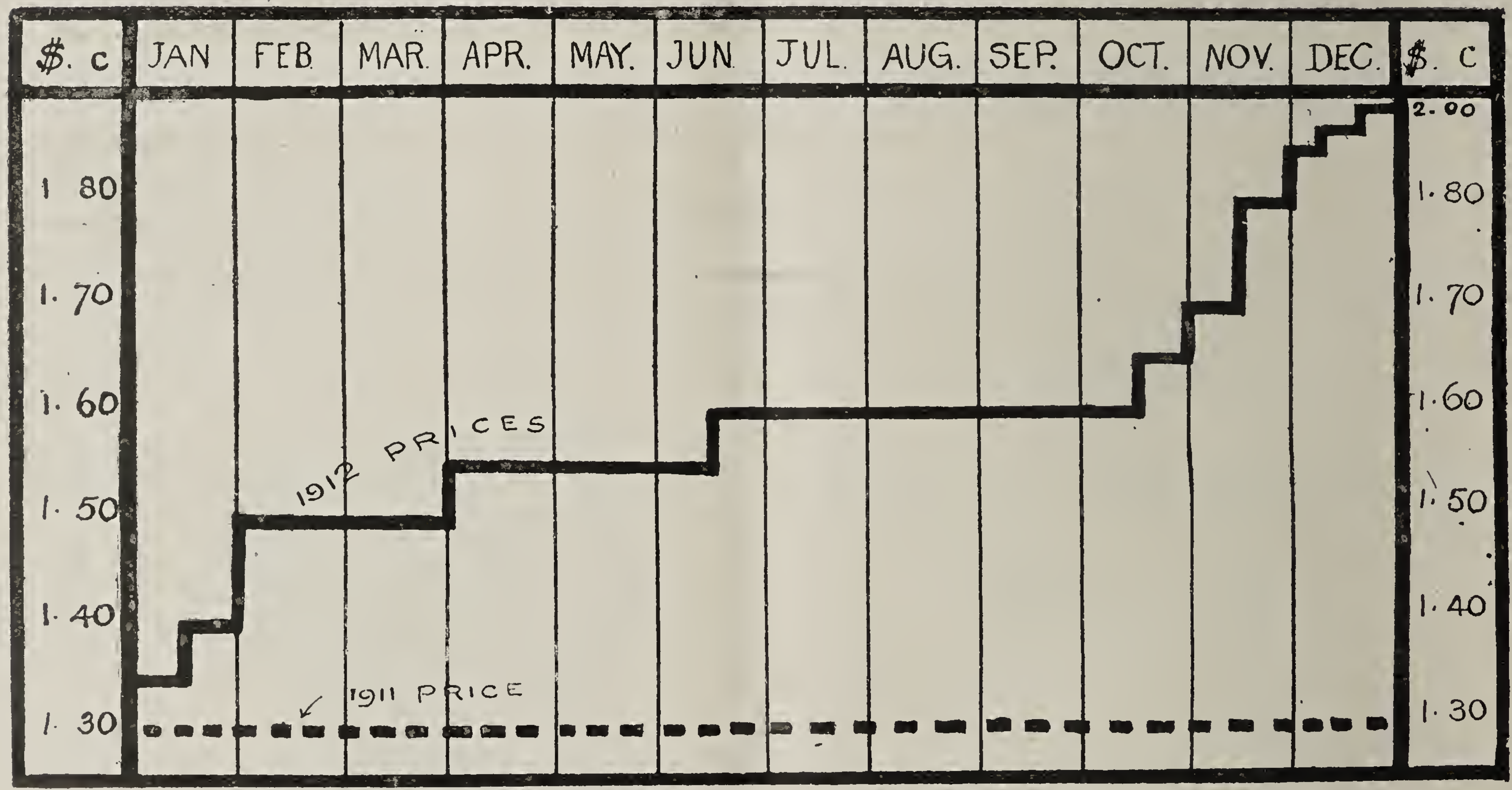
| | Tons. |
|---|---|
| Steaua-Romana ... ... ... | 31,640 |
| Astra-Romana ... . ... ... | 33,441 |
| Romano-Americana ... ... ... | 28,561 |
| Colombia ... ... ... ... | 1,985 |
| Concordia ... . ... ... | 6,784 |
| Orion ... ... ... ... ... | 10,158 |
| Roumanian Consolidated Oilfields. Ltd. ... ... ... ... ... | 4,626 |
| International .. ... ... ... | 3,742 |
| Trajan Roumanian Oil Company ... | 1,432 |
| Aquila Franco-Romana ... .. | 1,246 |
| Alpha ... ... ... ... ... | 2,323 |
| Nafta ... ... ... ... ... | 2,758 |
| B. Margulies ... ... ... ... | 1,626 |
| Anglo-Roumanian Petroleum Company ... ... ... ... ... | 1,800 |

# OIL PRICES IN 1912.

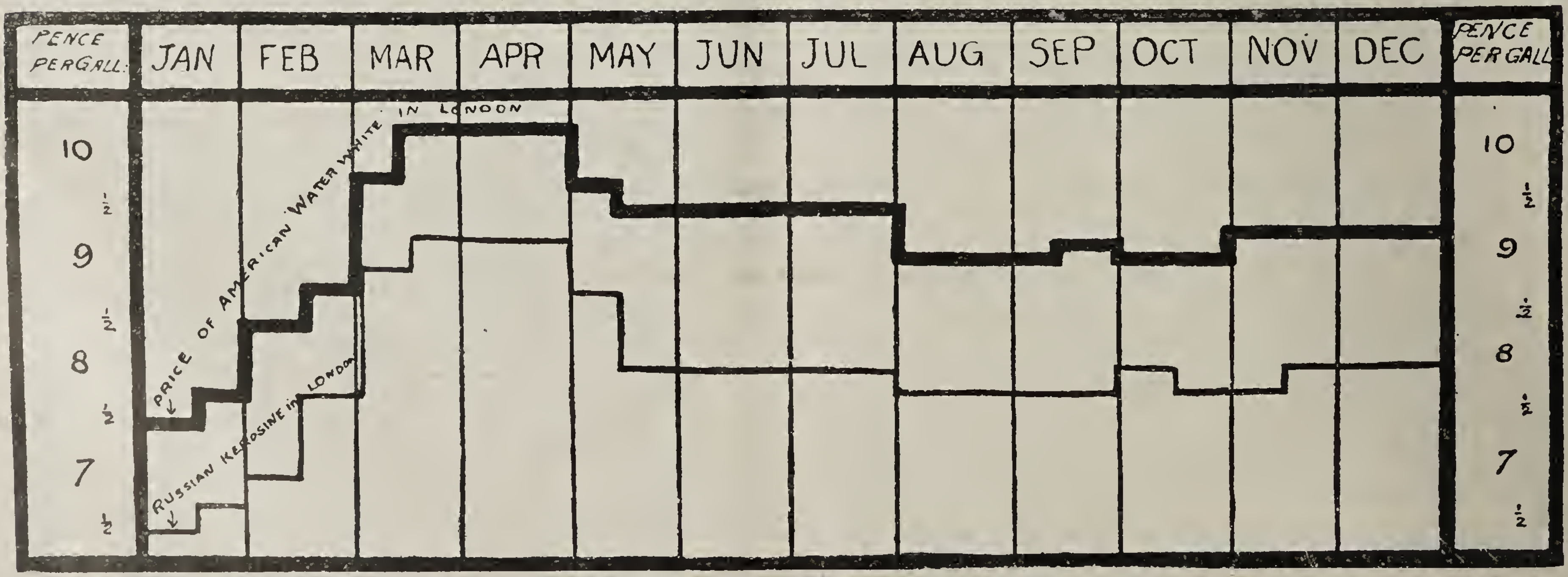
CRUDE OIL AT BAKU, IN KOPECKS PER POOD.



AMERICAN CRUDE, IN DOLLARS PER BARREL.

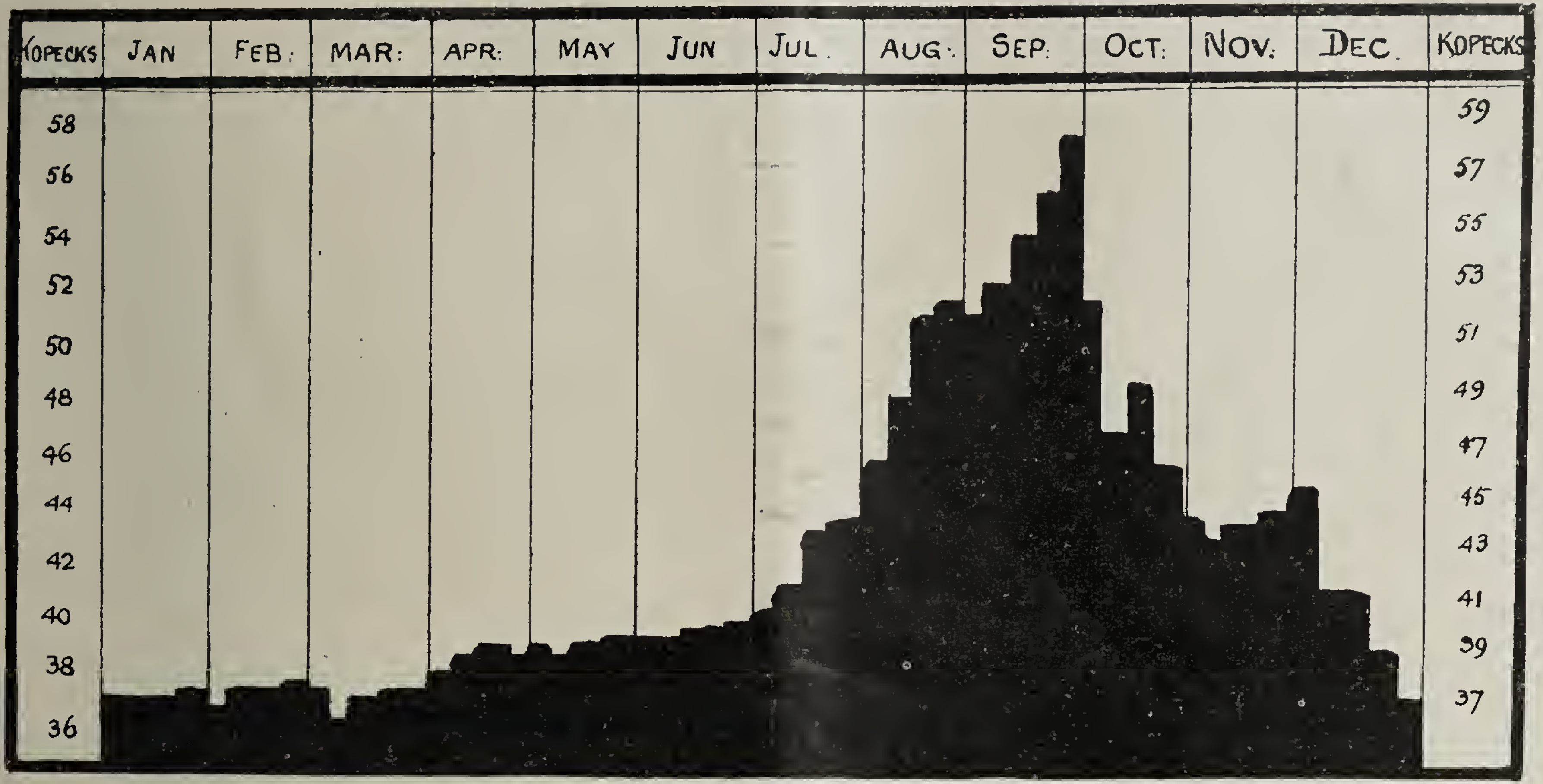


LONDON REFINED OIL PRICES.

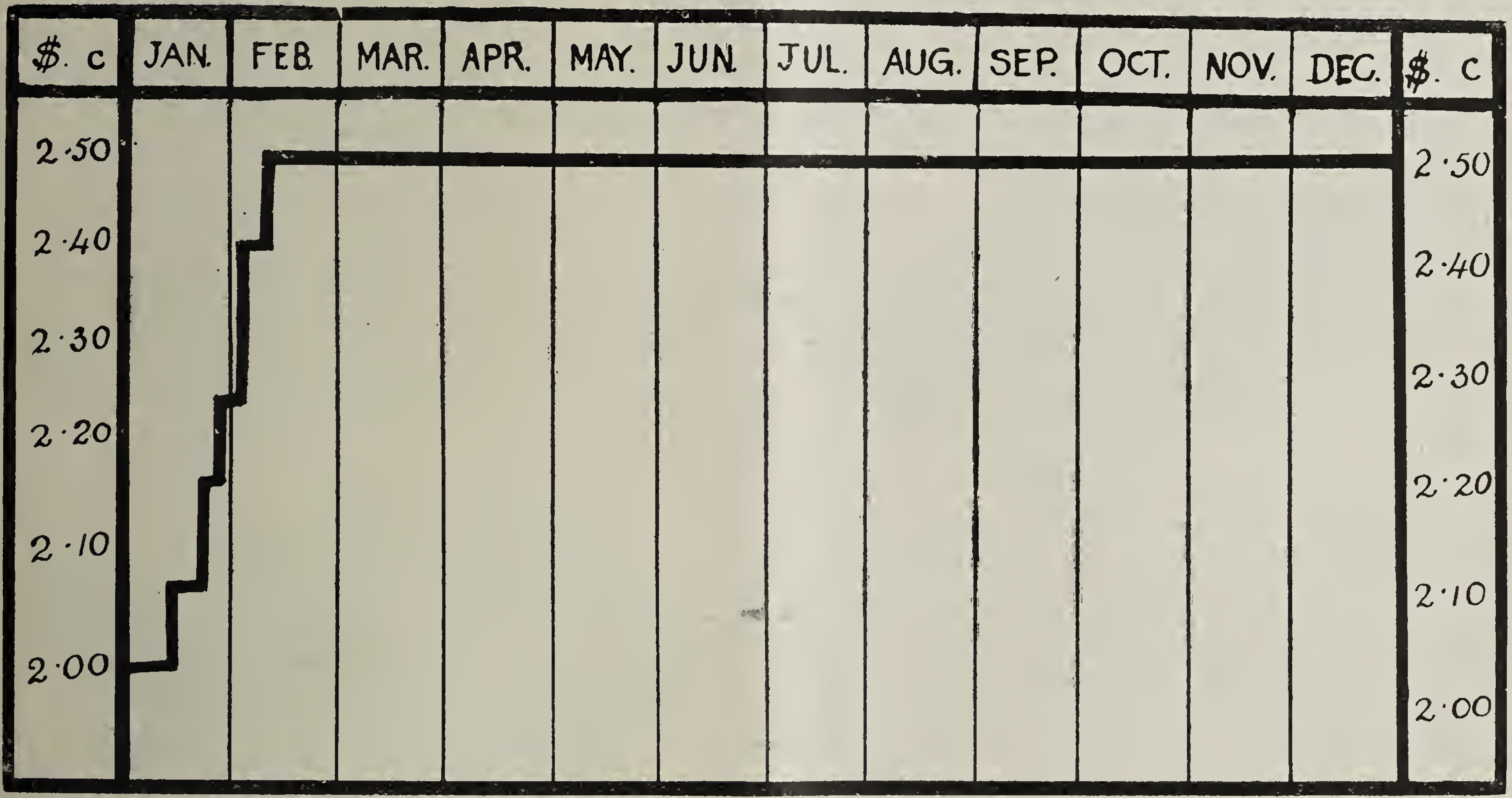


# OIL PRICES IN 1913.

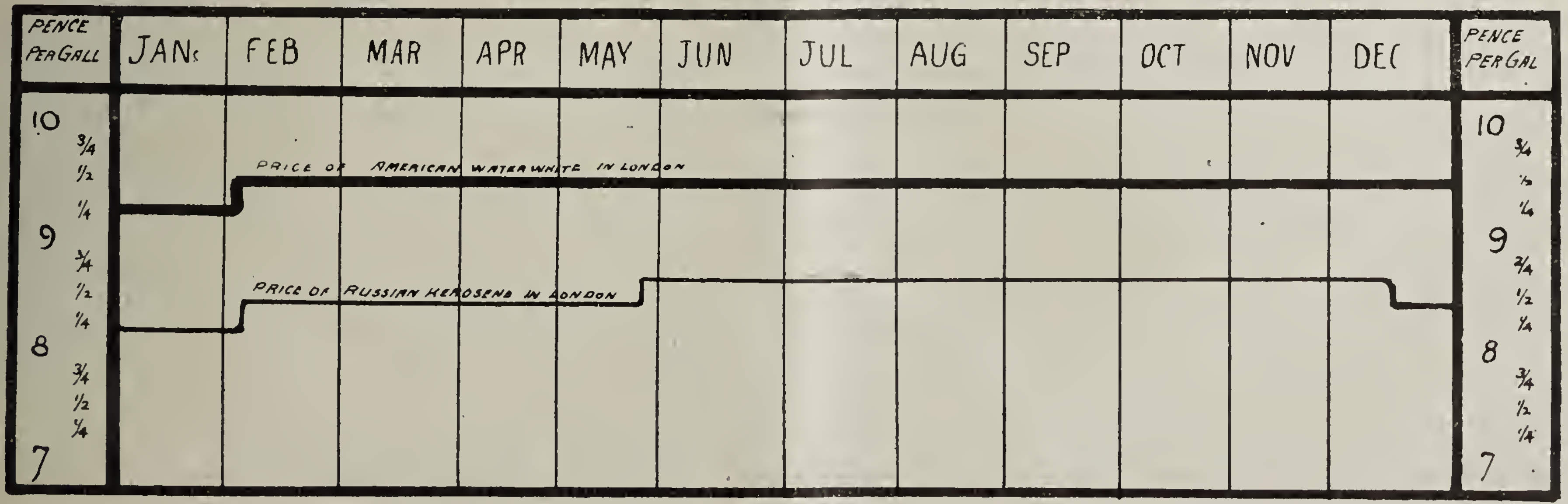
CRUDE OIL AT BAKU, IN KOPECKS PER POOD.



AMERICAN CRUDE, IN DOLLARS PER BARREL.



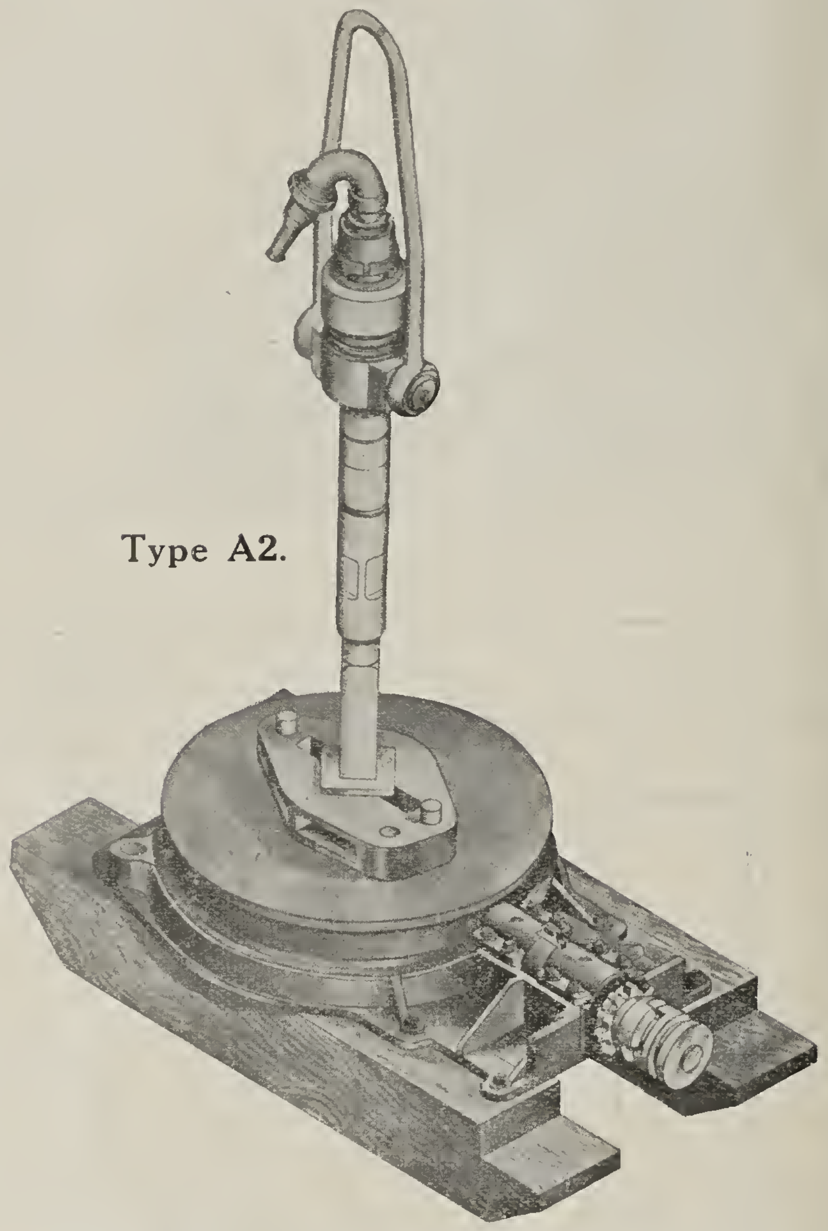
LONDON REFINED OIL PRICES.



# THE "BRITISH" ROTARY DRILLING MACHINE.

## THE OIL WELL ENGINEERING COMPANY'S NEW SPECIALITY.

THE credit for manufacturing the first British rotary drilling machine goes to the Oil Well Engineering Company, Ltd., of Cheadle and London, who are now placing upon the English market a "British"-made rotary machine in several types.



Type A2.

The Oil Well Engineering Company's products are so well known and so highly appreciated in the oilfields of the world that it is safe to say that the new "British" rotary, being made of the finest materials and embodying all the latest improvements, will soon make for itself an enviable name among oilfield operators.

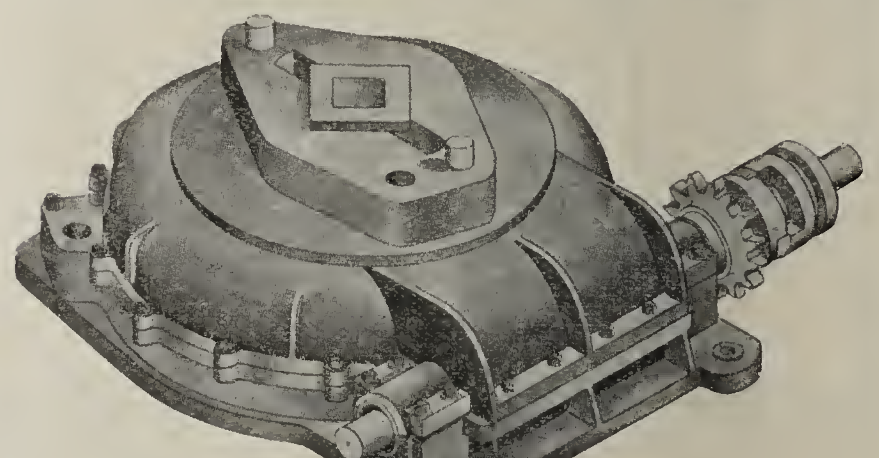
Mr. John Wells, consulting engineer, of Cross Keys House, E.C., is associated with the Oil Wells Engineering Company in the design of the new "British" rotary, and his worm drive has been introduced in the several types that are to be manufactured, while Mr. Wells' engineering department will represent the new rotary in London.

The illustrations which appear on this page, showing two of what will doubtless be the more popular types of the new rotary, require but little explanation; it is necessary, however, to mention one or two details—admittedly very important—in which the hitherto existing standard of rotary design has been boldly departed from. For instance, in the new "British" rotary the "grip-ring" device, which has for a long time been the primary cause of much trouble in the existing rotaries, has been abolished. The designers have felt that, inasmuch as the old grip-ring edges present only a very small surface on the special top section of the drill pipe, they tend to bite into and even crush the pipe under the stress of drilling, while the column thus held does not move freely between the grip rings, thereby throwing an excessive and quite unnecessary load upon the rotary table. This device is therefore non-existent in the "British," but in its place a simple casting is employed, which fits on to the rotary table, and which has a rectangular hole through the centre. Through this hole, which is plainly seen in both illustrations, a hollow square rod, several inches square and from 25 to 40 ft. long, is passed, and this is fitted with suitable substitutes at either end, one to suit the swivel and the other corresponding with the regular pattern of tool joint used with the drill pipe column.

Another special feature of the new rotary machine is that in all the different types they are totally enclosed. Both the gearing and bearing surfaces run in a bath of oil, and thus not only is friction practically absent but the weight on the bearing surfaces is but a fraction of that general with other makes of rotaries.

We understand that it is the intention of the Oil Well Engineering Company to market four classes of machines, but the most important are undoubtedly the two here illustrated—types A1 and A2, the former having a high-grade multiple thread worm driven rotary head, and the latter the tooth bevel wheel drive Both these rotaries are of the highest possible class, and consequently are recommended where really reliable machines are required and where first cost is not the greatest consideration.

In order to meet the desire of some operators for a cheaper machine, however, we learn that the designers have decided to adopt a pattern similar to A2, in which the cast-iron table is replaced by one of cast steel, the teeth in which are unmachined but chilled to ensure withstanding rough usage. Another type of rotary which the Oil Well Engineering Company propose to manufacture is the A4 machine, which, to all intents and purposes, is the same as now in general use on the oilfields. The gears are not protected, though the bearings and the table gearing are stronger than those usually marketed. This machine is fitted for the square rotation bar drive, in place of the usual "grip-ring" device.



Type A1.

To those interested in the "British" rotaries, all necessary particulars will be sent upon application.

# New Petroleum Companies during 1913.

## FULL LIST OF SOMERSET HOUSE REGISTRATIONS.

In spite of the fact that the year 1913 has been a particularly quiet one in connection with the public launching of new companies destined to operate in the world's oilfields, evidence is not wanting to show that in regard to the formation and registration of new enterprises the past year has been one of considerable activity.

In all, over one hundred new concerns have been registered, and though in the majority of the cases these were more or less of the syndicate type of concern, there is ample evidence afforded to conclusively point to the fact that to-day numerous new schemes are so far advanced as to warrant the belief that a large number will see the light of day once matters in the money markets improve.

The list of new registrations which we give below includes practically every kind of petroleum investment, and the sphere of operations, as seen from the titles of the companies themselves, is world-wide. With but a few exceptions no very influential concerns have been registered during the past twelve months, for excepting one solitary case, all the companies formed during the past year have share capitals below £1,000,000, whereas in the previous twelve months there were no less than half a dozen companies with capitals running well into the seven figures.

Glancing through the list of new companies registered during 1913, the New Schibaieff Company, with its capital of £1,160,000, stands out as the most important. This company, it will be remembered, is a reconstruction of the old Schibaieff Company, which was formed as far back as 1898, but which since 1908 was in the hands of an administration in Russia. The Anglo-Saxon Petroleum Company came to the rescue last year, and by agreeing to take up the whole of the preference shares of the new company (470,000 shares) made the reconstruction possible. The management of the business of the new company is now entrusted to the Anglo-Saxon Petroleum Company, which suggests that the New Schibaieff Company will have a successful future.

During the past year the International Russian Oilfields, Ltd., with its capital of half a million sterling, has been formed, this company, as is known, being an amalgamation of several interests in the Maikop fields, while the Bibi-Eibat Oil Company, Ltd., with a quarter of a million capital, has acquired the old Bibi-Eybat Company, and already turned failure into success.

In all, the companies registered during the past year have share capitals aggregating well over £10,000,000. Though their number is far in excess of the registrations recorded during 1912, the combined capitals are only about one-half that of the new companies formed during the preceding twelve months. The list, which in itself is eloquent as showing the widespread interest in petroleum enterprises generally, is as under :—

| Name of New Company. | Share Capital. |
|---|---|
| South Caucasus Oilfields, Ltd. .. ... | £60,000 |
| Melissa Hill Oil Company, Ltd. ... ... | 150,000 |
| Sphinx Petroleum Company, Ltd. ... ... | 150,000 |
| Colon Development Company, Ltd. ... | 100,000 |
| Trinidad Oil Leases, Ltd. ... ... ... | 6,300 |
| Chijoles Oil, Ltd. ... ... ... ... ... | 200,000 |
| Oil Reclaiming Syndicate, Ltd. ... ... | 10,000 |
| Kertch Taman Oilfields, Ltd. ... ... | 500,000 |
| Chiciura Oilfields of Roumania, Ltd. ... | 500,000 |
| Mexican Eagle Oil Company, Ltd. ... ... | 100 |
| Anglo-Russian International Syndicate, Ltd. | 15,750 |
| Boryslaw Oil Trust, Ltd. ... ... ... | 30,000 |
| Galician Oil Royalty-Holders Corporation, Ltd. ... ... ... ... ... ... | 5,250 |
| British Colonial and Foreign Oilfields Syndicate, Ltd. ... ... ... ... | 1,000 |
| Yomah Oil Company, Ltd. ... ... ... | 150,000 |
| Prahova (Roumania) Petroleum Syndicate, Ltd. ... ... ... ... ... ... | 25,000 |
| The Albert Province Syndicate, Ltd. ... | 100 |
| The L.N.G. Syndicate, Ltd. ... ... ... | 13,000 |
| Amatlan (Mexico) Petroleum Syndicate, Ltd. | 100,000 |
| New Caucasian Oilfields, Ltd. ... ... | 100 |
| Trinidad Leaseholds, Ltd. ... ... ... | 550,000 |
| Economin Syndicate, Ltd. ... ... ... | 2,000 |
| North Malaya Exploitation Company, Ltd. | 50,000 |
| Anglo-Mexican and Brazilian Options, Ltd. | 50,000 |
| North African Prospecting Syndicate, Ltd. | 3,000 |
| Burma Proprietary Syndicate, Ltd.... ... | 10,000 |
| Canola Syndicate, Ltd. ... ... ... | 5,200 |
| Oil (Proprietary) Syndicate, Ltd. ... ... | 40,000 |
| Anglo-Russian Investment and Finance Syndicate, Ltd. ... ... ... ... | 10,500 |
| Donnybrook Syndicate, Ltd. ... ... | 1,000 |
| The Seven Sands, Ltd. ... .. ... | 500 |
| Commercial Oil and General Syndicate, Ltd. | 10,000 |
| The Eastern Petroleum Company (1913), Ltd. | 200,000 |
| Copan Oilfields, Ltd. ... ... ... ... | 50,000 |
| Kazan Oilfields, Ltd. ... ... ... ... | 350,000 |
| The British Australian Oil Company, Ltd. | 300,000 |
| Casey Development Company, Ltd. ... | 100,000 |
| Paclele (Roumanian) Oil Company, Ltd. ... | 150,000 |
| Cape-Cairo Oil Development Company, Ltd. ... ... ... ... ... ... | 50,000 |
| Kuban Refining Company, Ltd. ... ... | 200,000 |
| Anglo-Russian Rotary Oil Boring Company, Ltd. ... ... ... ... ... ... | 25,000 |
| Olorex, Ltd. ... ... ... ... ... | 5,000 |
| Anglo-French Petroleum Syndicate, Ltd. ... | 40,000 |
| Guria Petroleum Corporation, Ltd.... ... | 350,000 |
| Moreni and Pacuri Oilfields, Ltd. ... ... | 125,000 |
| Venezuela Petroleum Exploration, Ltd. ... | 10,000 |
| British Oklahoma and Drilling Syndicate, Ltd. ... ... ... ... ... ... | 5,000 |
| Caucasian (Tchermoeff) Oilfields, Ltd. .. | 100 |
| Economin Motor Spirit Company, Ltd. ... | 350,000 |
| General Petroleum Company, Ltd. ... ... | 100 |
| East Caucasian Oilfields, Ltd. ... ... | 100 |
| Mid-Caucasian Oilfields, Ltd. ... ... | 100 |
| West Caucasian Oilfields, Ltd. ... ... | 100 |

| Name of New Company. | Share Capital. |
|---|---|
| English and Foreign Oil Finance, Ltd. | 52,500 |
| Central Caucasian Oilfields, Ltd. | 100 |
| The Lanark Syndicate, Ltd. | 1,000 |
| South Atlantic Oil Syndicate, Ltd. | 1,000 |
| Sageeyah Oilfields Syndicate, Ltd. | 5,000 |
| Anglo-Schnodnica Oilfields, Ltd. | 125,000 |
| Brunei Petroleum Syndicate, Ltd. | 50,000 |
| Jaffa Oilfields, Ltd. | 120,000 |
| Batavia Oilfields, Ltd. | 120,000 |
| Galician Petroleum Producers, Ltd. | 320,000 |
| Bibi-Eybat Oil Company, Ltd. | 250,000 |
| Oilfields of Emilia, Ltd. | 50,000 |
| International Russian Oilfields, Ltd. | 500,000 |
| Gouria Consolidated Oil Estates, Ltd. | 80,000 |
| Maniusia Oil Company, Ltd. | 10,000 |
| British Motor Spirit Syndicate, Ltd. | 50,000 |
| Traian Roumanian Oil, Ltd. | 250,000 |
| Scottish Oklahoma Oil Company, Ltd. | 35,000 |
| Moctezuma Oilfields, Ltd. | 200,000 |
| Grosny Sundja Oilfields, Ltd. | 300,000 |
| Romana Zabrat Oilfields, Ltd. | 50,000 |
| Indiana Oil Syndicate, Ltd. | 60,000 |
| Panuca Valley Oilfields, Ltd. | 200,000 |
| New Schibaieff Petroleum Company, Ltd, | 1,160,000 |
| Petroleum Carriers, Ltd. | 52,000 |
| Doris Oil Territories, Ltd. | 100,000 |
| Oak Valley Oil Company, Ltd. | 75,000 |
| Premier Roumanian Oilfields, Ltd. | 5,000 |
| Mid-Continent Oklahoma Oil Company, Ltd. | 85,000 |
| Parsani Oil Estate, Ltd. | 40,000 |
| West Caucasian Oilfields, Ltd. | 200,000 |
| Midland Roumanian Oil, Ltd. | 30,000 |
| The Eastern Carpathian Oil Company, Ltd. | 100,000 |
| Petrolifere, Ltd. | 1,000 |
| Oil Exchange, Ltd. | 50,000 |
| American Central Oil Syndicate, Ltd. | 5,000 |
| Renard Petroleum Process Company, Ltd. | 200,000 |
| General Oil Exploitation Syndicate, Ltd. | 10,000 |
| West Flandria Import and Export Company, Ltd. | 88,000 |
| Stuposian Oilfields, Ltd. | 140,000 |
| Bordeni Oil Lands, Ltd. | 30,000 |
| International Oil Lands, Ltd. | 100 |
| Manchester Oil-Coal Syndicate, Ltd. | 5,000 |
| Superheat Liquid Fuel and Floating Storage, Ltd. | 3,000 |
| De Ros Oil Furnaces, Ltd. | 1,000 |

◆

## NEW ENGLISH COMPANIES.

### THE "SUPERHEAT" LIQUID FUEL AND FLOATING STORAGE MANUFACTURING COMPANY, LTD.

REGISTERED on December 19th, by Crossman, Pritchard, Crossman & Blocks, 16, Theobald's Road, Gray's Inn, W.C. Capital, £3,000, in £1 shares. Objects: To carry on the business indicated by the title. First directors (who are to number not less than two nor more than five) are to be appointed by signatories. Qualification, £500. Registered office, 32, Great St. Helens, E.C. Private company.

### DE ROS OIL FURNACES, LTD.

Registered on December 19th, by Hart, Reade & Co., 44, Chancery Lane, W.C. Capital, £1,000, in £1 shares. Objects: To carry on the business indicated by the title, and to enter into an agreement with Dudley de Ros. First directors (who are to number not less than two nor more than five) are N. Vincent, P. Poirin, and Dudley de Ros. Qualification, £100. Remuneration, £25 each per annum. Registered office, 44, Chancery Lane, W.C. Private company.

**The Russian Kuban Industrial & Petroleum Company, LTD.,**
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**Combination Rotary and Percussion Outfits.**

Also Manufacturers of the Celebrated
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ALL THESE MACHINES are in use on our own mines, which ensures Customers getting the benefit of our experience in supplying the Latest Improvements, Best Material and Workmanship in all our manufactures.

WE ALSO SUPPLY EVERYTHING REQUIRED ON OILFIELDS.

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Mr. F. H. THOMPSON,
26, Sandhill,
Newcastle-on-Tyne.

Messrs. MUNSTER, SIMMS & Co., Ltd.,
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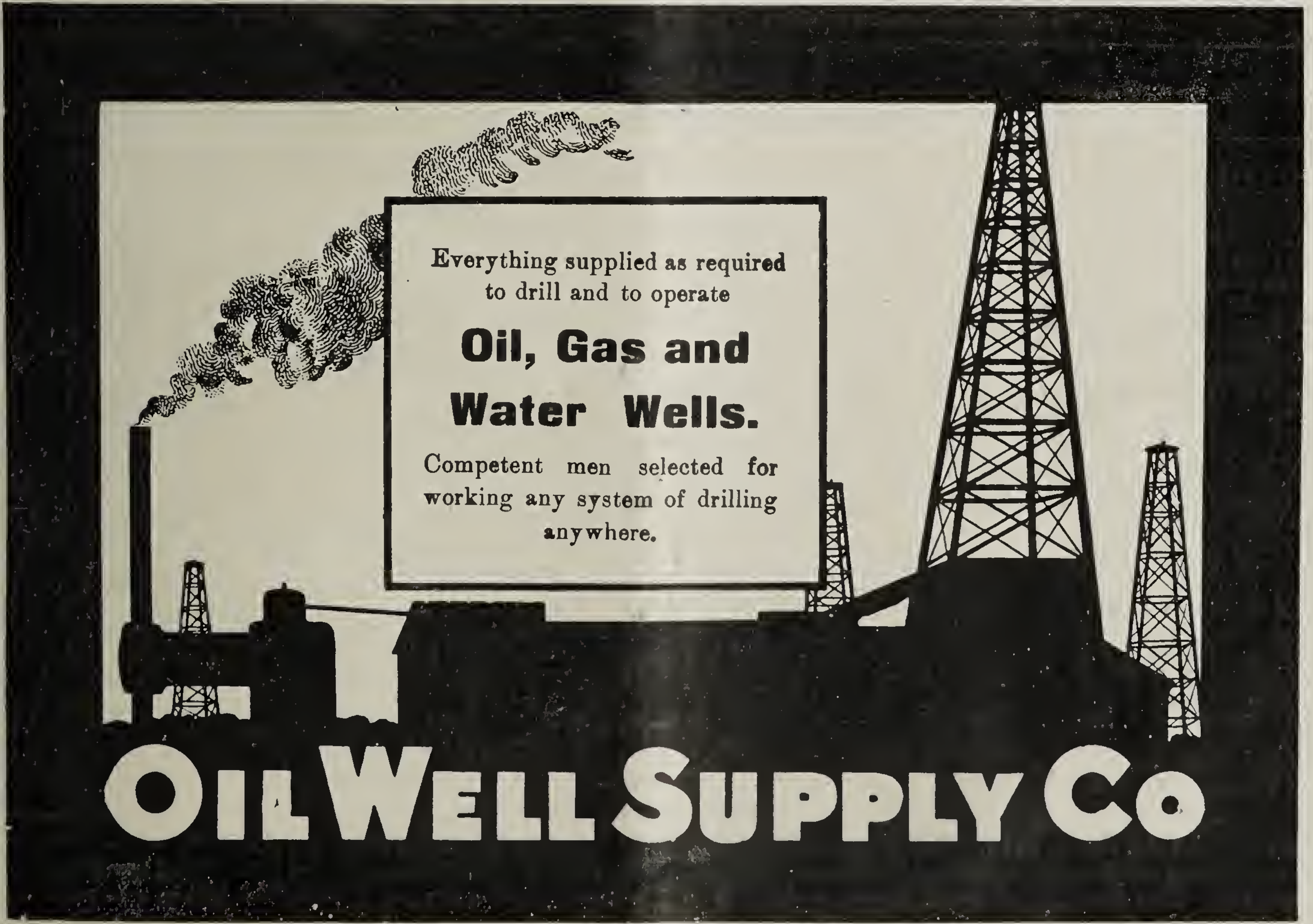

Everything supplied as required to drill and to operate

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DASHWOOD HOUSE, NEW BROAD STREET, LONDON, E.C.
Head Offices: PITTSBURGH.

# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | $\frac{17}{32}$-$\frac{19}{32}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-$1\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 92-97 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/9-5/3 |
| Bibi-Eibat Oil Co. ... ... | 250.000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 27/-28/xd |
| North Caucasian Oilfields — | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 32/6-33/0 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}$-$\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 20/6-21/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/0-3/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}$-$1\frac{3}{8}$xd |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047,610 | £1 | $4\frac{27}{32}$-$4\frac{29}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{1}{8}$-$10\frac{3}{8}$ |
| Spies Petroleum Co. .. | 750,000 | 10/- | 20/9-21/3 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 697 | 700 |
| Caspian Society (Issue 1910). ... ... | 1,000 | 3,185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,700 | 18,800 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 990 |
| Russian Naphtha Society ... ... | 100 | 251 | 253 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 36/6 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 76/9 |
| " Pref. ... ... ... | 250,000 | £1 | 26/6 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 6/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 37/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 35/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 21/4½ |
| Premier Oil Ord. ... ... ... | 2,300.000 | £1 | 6/0 |
| Pumpherston Min. Oil Co., Ltd. | | | |
| Ord. (17/- paid) .. | 110,500 | 17/- | $5\frac{5}{8}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 9/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 73/0 |
| " "B" Deb. ... | 160,000 | £100 | £153 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179½ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601½ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | 1/3–1/9 |
| Anglo-Persian Preference (£1)... ... ... ... | $\frac{15}{16}$–$1\frac{1}{16}$ |
| Anglo-Terek (£1)... ... ... ... ... ... | $\frac{1}{16}$–$\frac{3}{16}$ |
| Baku (10/- Shares) ... ... ... ... ... | 4/9–5/3 |
| Batavia (£1) ... ... ... ... ... ... | 19/6–20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{3}{16}$–$\frac{5}{16}$ |
| " Preference (£1) ... ... ... ... | $\frac{1}{4}$–$\frac{3}{8}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{5}{8}$–$\frac{11}{16}$ |
| British Burmah Petroleum (£1) ... ... ... | 4/9–5/3 |
| British Maikop (2/-) ... .. ... ... ... | 0/9–1/- |
| California (£1) ... ... ... ... ... ... | $5\frac{3}{4}$–$6\frac{1}{4}$ |
| California Petroleum Preference ($100) ... | 47–52x |
| Cheleken (£1) ... ... ... ... ... ... | $1\frac{23}{32}$–$\frac{25}{32}$ |
| Chijoles (£1) ... ... ... ... ... ... | 1–$\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{7}{16}$–$\frac{9}{16}$ |
| Copan Oilfields ... ... .. ... ... ... | 5/0–5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... .. | 2/0–2/6 |
| Eagle Transport Preference (£5) ... ... | $4\frac{15}{16}$–$5\frac{1}{16}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | 2–$\frac{1}{2}$ |
| Emba Caspian (£1) ... ... ... ... | $\frac{9}{16}$–$\frac{5}{8}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 5/9–6/3 |
| Hungarian National (£1) ... ... ... .. | $\frac{1}{2}$–$\frac{3}{4}$ |
| International Russian (5/-) ... ... ... | 0/6–0/9 |
| Kansas-Oklahoma (£1) ... ... ... ... | $\frac{5}{8}$–$\frac{3}{4}$x |
| Kazan Oilfields (£1) ... ... ... ... ... | $1\frac{1}{8}$–$\frac{3}{16}$ |
| Kern River (10/-)... ... ... ... ... ... | 5/9–6/3 |
| Lagunitos (£1) ... ... ... ... ... ... | $\frac{1}{8}$–$\frac{3}{16}$ |
| London Oil Syndicate (£1) ... .. ... ... | 1–$\frac{1}{4}$ |
| Maikop Premier (£1) ... .. ... ... ... | 10/6–11/6 |
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/6–4/6 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0–2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | $1\frac{7}{8}$–$\frac{15}{16}$ |
| Mexican Eagle Preferred ($10)... .. ... ... | $1\frac{25}{32}$–$\frac{27}{32}$x |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 85–95 |
| New Caucasian (10/-) ... ... ... ... .. | 1/3–1/9pm |
| New Oil Properties (£1)... ... ... .. ... | $\frac{7}{8}$–1 |
| Oil Development Trust (2/-) .. ... ... ... | 1/6–1/9 |
| Oil Shale Development (5/-) ... ... ... ... | 3/4½–3/7½ |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{16}$–$\frac{3}{16}$ |
| " " Preference ... ... ... ... | $\frac{1}{2}$–$\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... .. ... ... | $\frac{7}{8}$–1 |
| Pacific Petroleum (£1) .. .. ... ... ... | 22/0–23/0 |
| Premier Oil and Pipe Line (£1) ... ... ... | 5/9–6/3 |
| Ratoczyn (£1) ... ... ... ... ... ... | $2\frac{7}{16}$–$\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{19}{32}$–$\frac{21}{32}$ |
| Russian General Oil Corporation (£1) ... ... | $1\frac{27}{32}$–$\frac{29}{32}$ |
| Santa Maria of California Ordinary (£1) ... ... | 17/0–18/0 |
| " " Preferred (£1) ... ... | $1\frac{5}{16}$–$\frac{3}{8}$ |
| South Caucasian (£1) ... .. ... ... ... | $1\frac{1}{2}$–2 |
| Suez (£1) ... ... ... ... ... . ... | 4/0–5/0 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | 15/0–15/6 |
| Tampico-Panuco (5/-) .. ... ... ... ... | 7/9–8/3 x |
| Traian (Roumanian) (£1) ... .. ... | $\frac{7}{8}$–1 |
| Trinidad (£1) ... ... ... ... .. ... | $\frac{3}{8}$–$\frac{1}{2}$ |
| Ural Caspian (£1) ... ... ... ... ... | $2\frac{1}{4}$–$\frac{5}{16}$ x |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | 1–$\frac{1}{8}$pm |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}$–$\frac{1}{2}$ |

**Immingham Tide Table, 1914.**—We have received from the Great Central Railway Company a copy of the Immingham Tide Table for 1914. This neat booklet, which has been produced in pocket size, gives the high water and low water tides at Immingham for each day of the year. in addition to useful facts and figures, charges, steamship services, etc., respecting the ports of Immingham and Grimsby. Copies of the tide table will be sent free on application to Great Central Publicity Office, 216, Marylebone Road, London, N.W.

**Boring at Stavropoleos.**—The boring of the deep exploration well started here some time ago is now being completed. The well has attained a depth of 2,044 ft., and will be continued to 2,100 ft. Through all this depth there have only been met so far the Maikop strata of brown clays, without sand and without indications of bituminous matter and gas. Although there is little hope for oil, it is considered desirable to complete the well down to the foraminifera, on the limit of which they produce petroleum on the Maikop fields.

THE ANGLO-MAIKOP CORPORATION,
LIMITED,
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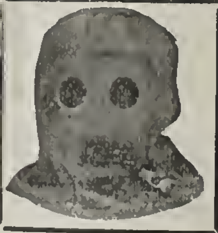
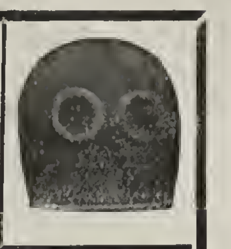

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— THE —
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Saturday, January 3rd, 1914.

## THE SCOTTISH OIL TRADE.

THE Scottish mineral oil companies are doing everything possible to increase their output. They have had a year of prosperity, for the quantity of shale raised and retorted in 1913 is over 3,000,000 tons. Modern methods of distribution have considerably aided the companies in disposing of their oils. Illuminating oil is now sent to all quarters of Scotland and the north of England by the bulk system in place of barrels, that is, motor and horse tank wagons and railway tank-cars: and the leading companies are competing in placing on the road the most up-to-date motor wagons.

Amalgamation was thought possible between the leading Scotch companies, and for some time seriously discussed, but this has not come to pass, and hence the competition is keen, aided as it is by the presence of motor wagons representing American and other companies.

Not only do the Scotch companies supply their home market, but owing to the keen competition of foreign companies, the Scotch oils are sent to distant markets in England and on the continent, where the shale oils have a good name and command a steady price on account of their reputation for reliability.

A feature of the Scotch companies' trade is the increasing Admiralty demands, and it may be taken for granted that the British Navy will always take full use of the home-produced oil. To meet Admiralty requirements immense storage tanks, each capable of holding over a million gallons of fuel oil, have been erected at Pumpherston, Broxburn, Uphall, Oakbank, and Addiewell. These huge reservoirs are kept full in readiness to meet demands at a moment's notice.

For navy requirements there is a great tank storage depôt at Invergordon, on Cromarty Bay, also at Rossyth and Dundee. So important, however, is it to have an ample supply of oil fuel that another naval oil depôt is to be installed at Blackness. This site on the Forth, near old Blackness Fort, has been selected as being within easy reach of the Scottish oilfields, and the cost of carriage is consequently not excessive. Perhaps in time to come the oil may be conveyed from the works to Blackness tanks by pipeline. The Pumpherston Oil Company has already a pipe service, but the area as yet is not extensive. As the Scotch companies can always rely upon a steady demand from the Navy they are placed in a very good position as to selling to other buyers, particularly for ship uses. The Admiralty requirements are meantime about 200,000 tons a year and are rapidly increasing. The fuel oil from the shale works is found exceedingly well adapted to naval purposes, being cleaner and more easily manipulated than the heavy petroleums of some foreign oilfields.

Foreign competition is growing stronger as oilfields develop and tank fleets multiply. Owing, however, to the ever-widening market for oil, for the supply of oil engines both marine and shore and for fuel purposes, Scotch mineral oil companies do not expect any immediate slackening of prices.

In administration the event of the year was the absorption of the Tarbrax Company by the Pumpherston Company. All the Tarbrax crude oil is sent to the Pumpherston refineries. The Tarbrax works have been enlarged. The year's record is one of steady progress: shale fields extended, new coalpits opened to supply coal for the works' requirements, retorts enlarged, refineries improved, and electric power introduced everywhere. The chemical experts at the Scotch shale works have, through their inventive genius, utilised practically all waste in the multifarious departments; and the balance-sheets for the year ought to show the result of good prices and skilled management.

For the twelve months to April, 1913, the balance-sheets of the four leading companies are summarised as follows:—

| | Net Profit. | Dividend on Ordinary Shares. | Depreciation. | Carried Forward. |
|---|---|---|---|---|
| Broxburn ... | £73,705 ... | 10% ... | £15.952 ... | £7,674 |
| Oakbank ... | 56,847 ... | 15% .. | 12,000 ... | 6,524 |
| Pumpherston and Tarbrax ... | 151.935 ... | 35% ... | 15,000 ... | 13,726 |
| Youngs ... ... | 88,861 ... | 5% ... | 20,000 ... | 4.527 |

◆

## DETAILS OF GROSNY PRODUCTION DURING OCTOBER.

THE following table gives the details of production of petroleum on the Grosny fields, together with the number of productive borings and the new depths bored during the month:—

| Firm. | Number of Plots. | Number of Wells. InExploitation. | In Boring and Deepening. | Total (in poods). | Including Spouted Oil (in poods). | New Boring (feet). |
|---|---|---|---|---|---|---|
| Akhverdoff Company ... | 9 | 67 | 12 | 2,738,600 | 65.500 | 1,098 |
| Spies Company ... ... | 27 | 56 | 14 | 1,353,120 | — | 3,128 |
| Russian Standard ... ... | 5 | 17 | 4 | 345,425 | — | 626 |
| Wishaw ... ... ... | 4 | 23 | 2 | 513,820 | — | 150 |
| Maximoff Trustees... ... | 7 | 13 | 11 | 246,900 | — | 1,645 |
| North Caucasian Company | 8 | 23 | 22 | 1,342,400 | 414,780 | 6,319 |
| Tcheleken-Daghestan Company ... ... ... | 12 | 22 | 12 | 319,060 | — | 2,283 |
| Anglo-Russian Maximoff Company ... ... ... | 2 | 20 | 4 | 229,000 | — | 382 |
| Moscow Petroleum Company | 1 | 7 | 3 | 89,600 | — | 466 |
| Caspian Black Sea Company | 1 | 3 | — | 6,880 | — | — |
| St. Petersburg Company ... | 5 | 10 | 1 | 16,000 | — | 55 |
| Anglo-Terski Petroleum Company ... ... ... | — | — | — | — | — | — |
| Skhirtladze ... ... ... | 9 | 10 | 13 | 155,900 | 35,000 | 2,200 |
| Tikhonisroff ... ... | 1 | 5 | 2 | 73,800 | — | 471 |
| Totals ... ... | 91 | 276 | 103 | 7,430,505 | 515,280 | 18,823 |

◆

**Colombia.**—The clearing of the well No. 1 at Tzuicani is being proceeded with, but meanwhile the well gives from time to time small eruptions, with a yield at present of about 30 tons a day. There are very good hopes that this well will shortly enter into a stage of regular eruptions.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO DECEMBER 29th, 1913.

[ALL RIGHTS RESERVED.]

IN GALLONS.

| COUNTRY. | ILLUMINATING. Since Dec. 20. | From Jan. 1. | LUBRICATING. Since Dec. 20. | From Jan. 1. | RESIDUALS. Since Dec. 20. | From Jan. 1. | GAS OIL (Solar). Since Dec. 20. | From Jan. 1. | BENZINE. Since Dec. 20. | From Jan. 1. | FUEL OIL. Since Dec. 20. | From Jan. 1. | OTHER DESCRIPTIONS. Since Dec. 20. | From Jan. 1. | TOTALS. Since Dec. 20. | From Jan. 1. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Belgium** .. | — | 250 | 14,300 | 742,983 | — | — | — | — | 1,660 | 73,970 | — | 120 | — | 5,070 | 15,960 | 833,3 |
| **Canada** .. | — | — | 9,570 | 19,390 | 2,650 | 72,310 | — | — | — | — | — | — | — | — | 12,220 | 91,7 |
| **Dutch Indies** | — | 70 | — | — | — | — | — | — | 3,703,000 | 44,012,050 | — | 382,227 | — | — | 3,703,000 | 44,394,3 |
| **Germany** .. | 6,970 | 239,090 | 34,160 | 3.507.960 | — | 600 | — | 211,810 | — | 651,640 | — | 800 | — | 4,610 | 41,130 | 4,616,5 |
| **Holland** .. | — | — | — | 12,560 | — | — | — | — | 307,000 | 7,671,340 | — | — | — | 590 | 307,000 | 7,684,4 |
| **Mexico** .. | — | 5,753,800 | — | — | — | — | — | 1,038,280 | 390 | 1,529,190 | 129,800 | 12,941,960 | — | 4,400 | 130,190 | 21,267.6 |
| **Roumania** .. | — | 20,712,357 | — | 312,210 | — | — | — | 1,150,000 | — | 5,802,950 | 83,000 | 9,002,540 | — | — | 83,000 | 37,980, |
| **Russia** . | — | 9,844.560 | 65,860 | 12,971,961 | 2,500 | 523.370 | — | — | 1,274,310 | 13,163,660 | — | — | — | — | 1,342,670 | 36,503, |
| **U.S.A.** .. | 4,491,030 | 120,369,807 | 1,014,450 | 47,587,224 | 13,760 | 253,515 | 825,650 | 63,000,970 | — | 23,706,880 | — | 7,761,550 | 10,080 | 944,405 | 6,354,970 | 263,564, |
| **Other Countries** | — | 80 | 7,360 | 177,150 | — | 480 | — | — | — | 4,859,240 | — | 62,870 | — | 1,102,360 | 7,360 | 6,202, |
| | 4,498,000 | 156,920,014 | 1,145,700 | 65,331,438 | 18,910 | 850,275 | 825,650 | 65,401,060 | 5,286,360 | 101,170,920 | 212,800 | 31,092,067 | 10,080 | 2,061,435 | 11,997,500 | 423,138, |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Another Withdrawal Order.**—Another withdrawal order of over 5,000 acres of oil lands in the Fullerton and Whittier county fields of California has caused a stir among oil operators.

**Floods Hamper Texas Shipments.**—Texas oil shipments have lately been greatly hampered by reason of floods. Owing to the railroad service being crippled, large quantities of oil fuel are held up, and several industries dependent upon liquid fuel are running short.

**To Drill in Arizona.**—The Tonto Basin Oil Company has commenced to drill a test well near the shore of Lake Roosevelt, Arizona. Oil is expected to be struck at 1,600 ft., for geologists hold to the belief that the lake once covered this portion of the country, and the oil should be found below the pre-historic bed.

**Another Rumoured Royal Dutch Purchase.**—It is consistently reported in Californian oil circles that the Royal Dutch-Shell interests have purchased the old Graciosa refining plant near Oilport, California. The refinery has a capacity of 25,000 barrels daily.

**Californian Operations Curtailed.**—There has recently been a general curtailment in the field operations in California owing to there being approximately 47,000,000 barrels of crude oil above ground. It is felt that when the greater demand comes, it will be easily possible to materially increase the output.

**The Standard to Build a Railway in Alaska.**—Sir Richard McBride, the Premier of British Columbia, states that he has concluded a deal with the Standard Oil Company to give them a charter at the coming session of the Provincial Legislature to build a railway through Alaska.

**Gasoline Output Increasing.**—The manufacture of casing-head gasoline in the Californian fields is steadily increasing, the majority of it after blending finding a ready market in Los Angeles and other cities. The Union Company alone has one of its units in the Santa Maria field, which is turning out 2,600 gallons daily and piped to Port Harford.

**Independent Pipelines.**—Messrs. Henry Brothers & Steyner are arranging to build a pipeline from the Inola field to the town of Inola. Private pipe lines are now becoming quite numerous in the Mid-Continental fields. The Sapulpa Refining Company, two of the Coffeyville refining plants, the two Okmulgee refineries, the Vinita Refining Company, the Ponce City Refinery, the Chelsea Refining Company and a number of other independent interests now have their own oil pipelines in the field.

## RUSSIAN.

**Second Cargo of Mexican Oil.**—On December 3rd the second cargo of Mexican oil, of 526,504 poods, arrived at Batoum for the needs of the Trans-Caucasian railways.

**Activity at Batoum.**—During the last week the activity at Batoum has somewhat revived as a result of exports of kerosene on the Turkish and Balkan markets, from where the demands are fairly considerable.

**Baku Petroleum Market.**—The situation on the Baku petroleum market is very weak. There are no exports at present by sea, and very few exports by rail. Deals are very few, and the prices keep at a level of 36½–37 copecs per pood for crude oil.

**New Producers on the Grosny Area.**—We have to note the entering into the Grosny area of three new firms, viz. Skhirtlatze, producing about 100,000 poods a month, Vladikavkas Railway, 60,000 poods a month, and the Nafta Society, 300 poods a month.

**The 32nd Siezd of the Baku Petroleum Producers.**—The 32nd siezd of the Baku petroleum producers was opened on the December 13th, 1913. Among the questions to be decided upon are the formation of a geological bureau, election of delegates for the mining bureau, etc., etc.

**New Companies.**—Two new companies have been formed, one under the name of Oleonaft with a capital of 2,000,000 roubles, for the purpose of petroleum exploitations in the Baku province, and the other under the name of Surakhani for the purpose of petroleum exploitations in the Surakhani district.

**New Oil Region at Grosny.**—New oil has been discovered in the Grosny region, viz., in the Bellikoff and Kurumoff districts, where a well of Grube gives an average 1,000 poods a day from a depth of 262 sagenes, and on the neighbouring plot a well has now reached oil at a depth of 257 sagenes. Several firms are energetically boring on the new area.

**Exportation during November.**—The total exports of petroleum products from Batoum during November amounted to 3,157,000 poods, including 558,000 poods of kerosene, which is comparatively a very small quantity. On the contrary, the exports of case kerosene were very high, and amounted to 349,000 cases and 355,000 tins.

**Large Spouter at Grosny.**—A spouter broke out on December 5th on the old area at Grosny from well No. 60, plot No. 3, of the North Caucasian Company, from a 12-in. bore and from a depth of 3,150 ft. The spouter is now yielding 50,000 poods of oil a day. The well is situated at a distance of 3,000 ft. to the south of the axis of the anticlinal, and shows that the farther to the south the richer are the lower strata in oil.

**19th Siezd of the Terski Petroleum Producers.**—The 19th siezd of the Terski petroleum producers has taken place at Grosny. Half a copec per pood tax has been decided upon on all oil produced in the Grosny district, as well as that imported from outside to be treated in the Grosny refineries. The siezd has decided to open negotiations with the Belgian company for the erection of an electric tramway from Grosny to the fields at a distance of 25 versts.

## ROUMANIAN.

**Exportation.**—Exportation is very active, and during November amounted to about 90,000 tons.

**International Petroleum Institute.**—A ministerial decision authorising the creation of this Institute in Roumania has been promulgated.

**Prices.**—Prices of crude oil are maintained at the high level of over 8 francs per 100 kilos for crude oil of Bushtenari type, and the tendency continues to be very firm.

**Germano-Romana.**—This enterprise has taken over an ancient productive well at Burloi, which it is now repairing and deepening in order to bring it into production.

**Steaua-Romana.**—The production of this company during the last week averaged 1,131 tons a day, of which 498 tons were obtained at Campina and 321 tons at Policiori. Several wells are in eruption.

**Victoria.**—This company has acquired the properties of the enterprises Gallia and Ialomitza at a price of 42,500 francs, consisting of two wells and certain areas at Puturosu, in the north of the Bushtenari district.

**Romana-Americana.**—The production of this company during the last week averaged 1,110 tons a day, of which 1,050 tons were obtained at Moreni. The well 8 P continues its eruptions, with a yield of about 350 tons a day.

**General Production.**—The general production is maintained at a figure of 5,000 tons a day. Several wells have been completed and have become productive, and others are in an advanced stage and are expected to strike oil at any moment.

**Apostolache Roumanian Oil Company.**—Under this name a new petroleum enterprise has been formed at Berlin for the purpose of acquiring petroliferous concessions in Roumania. The capital of the company consists of 20,000 marks.

**Sperantza.**—The general meeting of this company took place on December 14th, when a dividend of 300 francs per share of 100 francs was declared; 60,120 francs were allotted to the administration and 68,270 francs to the reserve fund.

**Astra-Romana.**—The production of this company during the last week averaged 1,227 tons a day, of which 831 tons were obtained at Stavropoleos, 254 tons at Bana, 54 tons at Campina, 81 tons at Filipeshti, and the remainder at Baicoi and Glodeni. The total production of this company for the year will amount to about 500,000 tons.

# THE OIL-TANKER TRADE DURING 1913.

### Over 250,000 Tons Capacity Launched during the Year from English Yards.

IN the building of oil tankers the year 1913 will ever remain one of the most memorable in history, for during its course it has witnessed the launching of nearly thirty new ocean-going oil tankers whose combined capacities is close upon a quarter of a million tons.

But with the launching of so many new oil-carrying vessels during the year the list of new tankers is by no means complete since over a dozen new boats are still on the stocks. and it will be almost the middle of the year before the last of these takes the water. Without exception all the large petroleum importing firms have considerably increased their ocean transport capacity during the past twelve months, but by far the largest number of new vessels has been constructed for the Eagle Oil Transport Company, Ltd., for the marketing of Mexican petroleum. This company, it will be recollected, set out to construct no less than ten tankers, each of which would have a carrying capacity of 15,000 tons. Of this number six have already been launched, and three of them are to-day in actual commission, while the remainder will soon be off the stocks.

The principal of longitudinal construction has made great headway during the year, and it is safe to prophecy that practically the whole new tonnage will henceforth be constructed upon the Isherwood design. Then the Diesel engine has made its advent in regard to oil tankers, for during the year the motor-vessel "Sebastian," for the carriage of petroleum in bulk was launched. The following is a complete list of the new tankers launched during the past twelve months, with their owners, and carrying capacities :—

| Vessel. | Owners. | Carrying Capacity | When Launched. |
|---|---|---|---|
| "Roumanian Prince" | Prince Line, Ltd. | 5,200 | January |
| "San Fraterno" | Eagle Oil Transport Company, Ltd. | 15,000 | February |
| "C. A. Canfield" | Petroleum Carriers, Ltd. | 9,700 | March |
| "Rosalind" | Messrs. Bowring | 9,700 | March |
| "Norman Bridge" | Mexican Petroleum Company | 6,600 | March |
| "Sebastian" | Messrs. Lane & Macandrew | 4,500 | April |
| "Socony" | Standard Oil Company | 5,000 | April |
| "San Ricardo" | Eagle Oil Transport Company, Ltd | 9,400 | May |
| "San Silvestre" | Eagle Oil Transport Company, Ltd. | 9,000 | May |
| "Impoco" | Deutsche Americanische A.G. | 3.000 | May |
| "San Gregorio" | Eagle Oil Transport Company, Ltd. | 15,000 | June |
| "El Toro" | Lobitos Oilfields. Ltd. | 9,000 | June |
| "Lucellum" | Lucellum Steamship Company | 7,[illegible]00 | June |
| "Luz Blanca" | London & Pacific Petroleum Company | 6.800 | July |
| "Pawnee" | Deutsche Amerikanische A.G. | 7,300 | July |
| "Silvia" | Messrs. Bowring | 5.000 | August |
| "Edward L. Doheny" | Mexican Petroleum Company | 9,800 | August |
| "San Tirso" | Eagle Oil Transport Company, Ltd. | 9,300 | August |
| "Charles E. Harwood" | Petroleum Carriers, Ltd. | 5,000 | September |
| "San Urbano" | Eagle Oil Transport Company, Ltd. | 9,400 | September |
| "Donax" | Anglo-Saxon Petroleum Company | 5,000 | October |
| "Eburna" | Anglo-Saxon Petroleum Company | 7,000 | October |
| "Elsinore" | Bear Creek Petroleum Company | 9,700 | November |
| "San Hilario" | Eagle Oil Transport Company, Ltd. | 15,000 | November |
| "San Valerio" | Eagle Oil Transport Company, Ltd. | 9,000 | November |
| "San Isidoro" | Eagle Oil Transport Company, Ltd. | 15,000 | December |
| "San Jeronimo" | Eagle Oil Transport Company, Ltd. | 15,000 | December |
| "San Lorenzo" | Eagle Oil Transport Company, Ltd. | 15,500 | December |

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## LAUNCH OF S.S. "SAN LORENZO."

ON December 27th there was successfully launched from the Wallsend shipyard another large steamship for carrying oil in bulk. As the vessel left the ways, she was gracefully named the "San Lorenzo" by Mrs. Godfrey-Faussett, wife of Captain Bryan Godfrey-Faussett, R.N., C.V.O., C.M.G., one of the directors of The Eagle Oil Transport Company Ltd., of London, who own the ship. The "San Lorenzo" is to carry some 15,500 tons of oil, and is the last of three sister ships that Messrs. Swan, Hunter & Wigham Richardson, Ltd., have launched this year, and is the seventh built by them during 1912 and 1913 for the same owners. Like the "San Fraterno" and the "San Gregorio," the ship that has just been launched is 431 feet long, with a breadth of 66½ feet, built upon the Isherwood system of longitudinal framing and to the highest class of Lloyd's. Her construction has been supervised by Messrs. Jacobs & Barringer, of London, the owners' consulting naval architects and engineers, whose resident inspector is Mr. Walter Bradney. The quadruple-expansion engines and boilers are being built by The Wallsend Slipway and Engineering Company, Ltd., and will be placed in the after-end of the ship. The boilers are fitted with the Wallsend-Howden patent apparatus for burning liquid fuel. The "San Lorenzo" has two pump rooms containing four powerful oil pumps. The oil holds, together with the oil cross-bunker, are divided into twenty-six compartments by transverse and longitudinal oiltight bulkheads. Comfortable quarters are provided for the captain, engineers and officers, the former being in the bridge-house amidships and the latter in the poop.

# SAKHALIN OIL FIELDS, LTD.

## FIRST ANNUAL MEETING.

The first ordinary general meeting of the shareholders of the Sakhalin Oil Fields, Ltd., was held on Tuesday, at Winchester House, London, E.C., Mr. E. T. Boxall, the chairman of the company, presiding.

In moving the adoption of the report and accounts, the Chairman gave a brief report of the company's history. In doing so, he said that after the formation of the company no time was lost in dispatching a boring staff to the property. Acting upon the assurance of their correspondent at Vladivostock, that a vessel would be ready to convey the expedition to Sakhalin upon its arrival, Mr. George Thom and eight men were sent from London at the beginning of October, 1912. It turned out, however, that tonnage in Vladivostock was very scarce, and there was a fortnight's delay before a vessel could be obtained. It would indeed have been better if no vessel could have been chartered, for the little "Nachodka" proved to be quite helpless in the weather she encountered after leaving Yokohama, where she had to call for the drilling plant, for finally she had to return to Vladivostock, and the machinery she carried had to be stored for the winter. The question then arose as to what they should do with the staff. The winter overland route to Tchaivo would soon become practicable for the men, but it would be a far too expensive undertaking to send the machinery that way, and the plant on the spot was insufficient to fully employ all the eight drillers. Eventually it was decided to recall four of the drillers and send the remainder overland. The distance was about 1,000 miles, the first 300 as far as Chabarovsk being by rail and the rest by sledges. Their Russian colleagues had very strongly urged the appointment of an ex-army officer, in whom they had the greatest confidence. to manage the expedition and the company's affairs in the East—a most unfortunate selection, as events proved. However, he conducted the expedition safely to Tchaivo, after touching at Post Alexandrowsk, where the Governor of Sakhalin very kindly received and welcomed the staff. The expedition left Vladivostock on February 11th, and reached Tchaivo on April 3rd, where the Russian staff of workmen had been waiting since November. A certain quantity of timber had been cut, but no further preparations made for housing the staff, or for preparing the wood for building habitations and derricks, for the simple reason that there was no one in charge capable of instructing the workmen. Their men, therefore, had to have recourse to the houses of the China Oil Company in the vicinity, which they rented, that company having ceased active operations. No building could be commenced whilst the snow lasted, but the material was prepared and transported to the selected sites, as were also the heavier parts of the drilling plant. The first derrick was completed on May 26th, and drilling was started on plot No. 479 at Boatissan, and then occurred the unfortunate incident which prevented work during practically the best part of the summer, and explained what the shareholders had doubtless been asking themselves, namely, why so little actual boring had been accomplished. As was stated at the statutory meeting and in the report, the Russian Government had their interest very much at heart, and they had shown their goodwill in several practical ways, the chief one of which was they granted them five years instead of one in which to prove their claims. Unfortunately, the department concerned omitted to inform the local Government mining engineer of that concession, and he, under the impression that the claims had been allowed to lapse, forbade their men to do any further work upon them. That occurred in June, and owing partly to delays in discussions between the mining engineer and their manager, and in a much greater measure to the inadequate means of communication (the nearest telegraph office being at Post Alexandrowsk, the other side of the island), it was not until August that their St. Petersburg friends were apprised of what had occurred, and again (negotiations with Government being proverbially lengthy) it was some weeks before they could set the machinery in motion to have the Government mining engineer at Sakhalin properly instructed by his department. Some time again elapsed before permission to work could be conveyed to Tchaivo. Finally, operations were resumed in September, and a cable from Mr. George Thom, dated December 2nd, read as follows: "Drilling night and day. Total, 304 ft. Advise where to fix second plant."

That confirmed what they had always maintained, that, once a derrick was erected, and the men were working under cover, drilling could continue throughout the winter. They did not expect to strike oil at Boatissan before reaching a depth of about 500 ft., which was the point at which the China Oil Company found oil, and they hoped soon to get a further cable from Mr. Thom, announcing that he had got down to that depth and found the first oil. The conditions at Nutovo were different. Oil was met with at a much shallower depth, say about 350 ft., but they did not know that at the time of Mr. Thom's departure from London, and he left with instructions to commence operations at Boatissan as it was nearer his base, where the machinery was stored, and where the expedition was to be housed. They sustained yet another set-back also in consequence of the lack of proper means of communication. The letter by which the secretary notified the English staff that their contracts were renewed for a further year miscarried altogether; in fact, they had reliable information that the mail-bag was lost between Post Alexandrowsk and Tchaivo, and was never recovered, and the telegram by which the secretary informed Mr. Thom that the letters were on the way was so badly mutilated as to be unintelligible. The result was that two of the remaining four Englishmen (one having been dismissed in the meantime) threw up their jobs and returned home, and had actually left Vladivostock before they could be stopped. That reduced their English staff to two, Mr. Thom and one other, and it was greatly to their credit that they stuck to their posts when they were without news from headquarters and found themselves forsaken by their comrades. That, he was happy to say, exhausted the tale of their reverses and he would turn to the brighter side of the picture.

The shareholders had seen that most of their troubles in the past were directly attributable to inadequate means of communication. He was glad to inform them, however, that, following representations made to them by their St. Petersburg colleagues, the Government had expressed their intention of installing wireless telegraphy between Post Alexandrowsk and Tchaivo. Doubtless, his Excellency the Governor of Sakhalin, to whom they were much indebted for having made the journey from St. Petersburg to be with them that day, would be able to confirm this further evidence of the Government's goodwill. If this installation of wireless telegraphy were carried out there would be direct telegraphic communication between London and Tchaivo. As would be seen from the directors' report, Sir Boverton Redwood, the eminent authority on petroleum, sent out, at the directors' request, an experienced member of his staff, Mr. Francis A. Holiday, to make a thorough examination of the property, to select sites for further drilling, and to advise them generally as to the best method to pursue for working the oilfields to the greatest advantage. He had to inform the shareholders that since the statutory meeting the company had obtained an important concession from the Sakhalin Oil, Coal, and Trading Company, the original owners of their property, and who still owned 154 other oil claims in the same districts. Convinced that oil was abundant throughout the district, and being anxious, as shareholders, for this company's success, which would at the same time enhance the value of their remaining claims, they had given their company a roving right of selection over the entire 204 claims—that was to say, they were not bound down to the identical fifty claims purchased. If they preferred any other claims that company would give them to the company in exchange for an equivalent number of those which they had at present. Mr. Holiday arrived at Tchaivo in July, and found all the works stopped by the Government engineer in the circumstances which he had related. However, Mr. Holiday made good use of his time during his three months' stay on the island, and although the time was not sufficient for him to visit all the districts, he was there long enough to be able to form a very high opinion of those he did survey. The shareholders had read Sir Boverton Redwood's conclusions from Mr. Holiday's notes, and he might add that the detailed report, of which they were, in effect, a brief summary, conveyed the fullest possible information respecting the general geological structure of the island, the specific topographical and geological features of the company's various properties, the causes of the non-success of the drilling carried out by others, and recommendations relative to the future work of a company. The document was a lengthy one, extending to more than forty pages of typewritten foolscap, and it would obviously be impossible for him to give at that meeting anything more than an idea of its comprehensive character. Moreover, much of the information which it contained was confidential, which it would not be in their interests to make public, but which was of the highest value for their guidance in the work before them. He must therefore ask them to be content with his telling them that Mr. Holiday returned from his three months' study of the properties firmly convinced that the areas over which the company had drilling rights were unquestionably oil-bearing, and that with systematic development, judiciously carried out in the manner indicated in the report, and with adequate capital, satisfactory results should be obtained. Moreover, Sir Boverton Redwood, having carefully studied the data furnished by Mr. Holiday, fully endorsed that gentleman's conclusions. All that they had to do, therefore, was to be patient, confident, and persevering, avoiding the mistakes which had been made by others, conducting their exploratory operations in the light of the valuable experience and knowledge of the local conditions which they had already gained, and intelligently shaping their course in accordance with the further information which those operations would furnish.

They were in no worse position than that of every pioneer organisation in an undeveloped oilfield, and he merely mentioned that fact in order that they might not be discouraged if their progress were not as rapid as they all naturally wished it to be. They must rest assured that the directors would spare no efforts to bring the properties to a dividend-paying stage of development at the earliest possible date, but their policy should be sure if slow, and it was only by cautious procedure that the foundations of a permanently successful oilfield could be laid. If they found oil in commercial quantities, as they confidently hoped they would, they would have a rich reward, for at no time in the history of the petroleum industry was an addition to the existing oil sources of supply in such an important geographical position more urgently needed than it was at present. They were justified in hoping, in fact, that Sakhalin would become one of the world's oil-producing centres. Their market was practically unlimited, imported oils being subject to heavy dutes. They had, on the one hand, the whole of the Amur River valley; in fact, he might say the whole of Siberia up to Lake Baikal, with no competitor nearer than Baku. Whole forests had been devastated in these districts in order to supply the railways and river steamers with wood fuel. On the other hand, they could compete in China on equal terms with other companies. The company's expenses had necessarily been heavy, as was inevitable in any enterprise carried out under pioneer conditions in a practically unpopulated country. They appeared at first sight to be out of all proportion to the results attained, but if they took into consideration the circumstances and events which it was impossible to foresee, and which hampered their operations, he thought the shareholders must arrive at the conclusion that the company's prospects were excellent. All that was required to realise them was adequate working capital.

Turning to home matters, he said that in March the directors concluded a satisfactory arrangement with the vendors, whereby they agreed to accept 10,000 fully paid shares of this company in lieu of the £10,000 cash, the balance of the purchase consideration owing to them under the terms of the agreement, in consideration of the removal of certain restrictions imposed on the vendors' and promoters' shares. He expressed regret that Sir Richard Awdrey, their late chairman, had been compelled, owing to failing health, to resign his seat on the board, and that Lord Ffrench had also been obliged to resign owing to his other affairs in China preventing his devoting the time to this company's affairs that he considered advisable, but Lord Ffrench had offered to conduct any negotiations which this company might wish him to undertake in Peking or the East generally. He was pleased to state that Farouk Bey Wisiroff would join the board. The Chairman concluded by moving the adoption of the report and accounts.

Mr. W. D. Oelsner seconded the motion.

His Excellency the Governor of Sakhalin (Mr. Gregorieff), who was received with applause, then addressed the meeting, his remarks being interpreted by Prince Nicholas Radziwill. He said that he wished to tell the shareholders what he thought about the colossal richness in oil and coal of the Island of Sakhalin. The western part of the island was one huge coal bed of very high quality, and the eastern part was a long petroliferous stretch of country. On the surface of the lakes, and all along the petroleum-sodden turf covering the ground, they found outcrops of oil and gas. The gas outcrops were so strongly impregnated with petroleum gases that they could be lighted with matches. He was absolutely convinced of the presence of immense riches of petroleum in that part of the island. The excellent port of Tchaivo, on the eastern part of the island, in his judgment, added to the value of the oilfields in that district. He desired to say that the company would always find in him a most sincere and willing helper, and he also stated that his Excellency Mr. Timiriazeff, who was well known in England as Secretary of State for Commerce in Russia, and also connected with the Anglo-Russian Bank and Lena Goldfields, besides being chairman of the Anglo-Russian Chamber of Commerce, had asked him to tell the shareholders that he was willing to help the company so far as he was able to do so. The shareholders had to bear in mind that an oil business of this magnitude in such a country was no little thing. It was one that would have a great effect on the markets of the world, so they were liable to have up against them the old-established oil-producing companies. That was one reason why they should gather round the board and give them their support in the efforts now being made to make a success out of the venture. He wished to say that he hoped the company would be successful, and he advised them to energetically continue their great and difficult task.

Mr. C. H. Wright remarked that they had had a very nice speech from his Excellency, and one which it was to be hoped would assist them in the work before them. He pointed out that they had spent the sum of £18,650, and for that they had got 300 ft. of boring. If they went on at that rate another twelve months would see the company through its funds.

Dr. Paul Dvorkovitz said that with regard to the report of Sir Boverton Redwood, which had been attached to the balance sheet, he was glad to say that in every respect it agreed with the conclusions which he himself arrived at when he had the pleasure of reporting upon the oilfields of Sakhalin for his Serene Highness Prince Radziwill in 1909. Unquestionably the Sakhalin oilfields contained a very large quantity of oil and had a great future. As shareholders, they all appreciated the great help which his Excellency the Governor of the Island (Mr. Gregorieff) had given to them from the beginning, and he thought, too, that they ought to feel grateful to his Excellency for coming to the meeting that day, and for his promised help for the future. He had devoted a great deal of time to the company, and had given a great deal of encouragement to the English drillers, and without doubt it was largely due to the efforts of his Excellency that Mr. George Thom had remained with them when forsaken by his colleagues. It was also a great pleasure to him personally to see Prince Radziwill, who had travelled from Russia specially to attend the meeting, and he might mention that his Serene Highness, with his family, had a very large stake in the company. Prince Radziwell believed so much in the future of the Island of Sakhalin that he and his family had invested in original syndicates, companies, etc., in Sakhalin about £35,000. He had therefore shown in a practical manner his belief in the future of Sakhalin. Regarding the expenses of their pioneer work, and the dispatch of the expedition, the speaker went on to say that it proved to the Russian Government their sincerity in trying to develop their properties, even though it reached the island late. It was a trump card for them to use in endeavouring to get their period extended for another five years in which to develop the properties, for it showed the Russian authorities that, anxious as they were to carry out their obligations, they could not fight against nature. The fact that they had got the Russian Government to give them an extension of time for another five years was a very great advantage, and if they had not sent their expedition when they did there was no doubt their company would have lost its fifty claims. He was glad to see present Mr. Holiday, who was a man of great experience, and perhaps that gentleman would give the meeting a general idea of his views of the properties.

Mr. Holiday remarked that when he left London, Sir Boverton Redwood had already formed his opinion as to the oilfields of Sakhalin from several reports which he had received at different times, and Sir Boverton had, on the whole, formed a very favourable opinion of the fields. He then proceeded to give some particulars of the Island of Sakhalin, and stated that in various parts of the island he visited on their behalf there were outcrops of oil and gas, and said that in some places the oil was flowing out on the surface. He had come to the conclusion that the work done in Sakhalin in the past had not been carried out in a proper way. In some cases the boring had been in what he considered wrong spots, and in others it had been started with insufficient capital, merely hoping for luck at the beginning, whereas with the requisite working funds they could have gone further and obtained favourable results. He found, in working from the north from Nutovo, that in many places there were evidences of the existence of oil. It showed itself at the surface, in some places it was flowing out of the ground, and in others it had become hard, like asphalt. The company's properties were very accessible and being near the coast, the cost of laying down pipelines would not be great. In the northern part of the island there was a little more disturbance than in the south, but the evidences of the abundance of oil in the north were very great.

The Chairman said that he had intended to refer to the question of working capital. He did not think the English shareholders would be asked, in the event of the present funds being exhausted to supply any further money, as their friends in St. Petersburg were very hopeful of being able to place on satisfactory terms the whole or part of the unissued shares. The funds at the company's disposal at present were sufficient to carry on with well into the middle of next year; but, of course, they would not wait till then before making arrangements regarding fresh capital. With regard to Mr. Wright's remarks, the board accepted without demur the criticism as to the excessive cost of the first work. Part of it happened, he thought, before he joined the board. As Dr. Dvorkovitz pointed out, if they had not made an effort to send the expedition when they did they would have stood a chance of losing the whole of their claims, and so, if the cost had been a little high, he thought the end justified the means. With regard to the calls in arrears, he mentioned that the sum had now been reduced to £2,561, of which £2,510, due from one individual, would be paid in February.

Mr. S. de Delsalle, at the request of the chairman, then conveyed the thanks of the board and of the shareholders to his Excellency the Governor of Sakhalin for his address and his promises of help to the company, and in reply his Excellency, through Prince Radziwill, again repeated his interest in the company's affairs, with the assurance that he would do all that he could to assist them.

The retiring director (Mr. E. T. Boxall) was then unanimously re-elected, and a vote of thanks to the chairman closed the meeting.

# THE PREMIER OIL AND PIPELINE COMPANY, LTD.

## THE YEAR'S PRODUCTION 262,380 TONS.

The directors of the Premier Oil and Pipeline Company report for the year to April 30th, 1913, that the result of the operations is a profit of £233,675. The amount received for transfer fees was £1,320 and for interest and exchange £113, and the balance brought forward was £25,626, making in all £260,734, which, after deducting London expenses, travelling, directors', managing directors', and auditors' fees and legal costs, amounting to £14,838, leaves a net balance available for distribution of £245,896. The following dividends have been paid and are accrued: At 7 per cent. per annum on 1,150,000 preference shares, £75,248; 6d. per share on 953,000 ordinary shares, paid May 6th, 1912, £23,825; 6d. per share on 2,300,000 ordinary shares, paid October 1st, 1912, £57,500; 6d. per share on 2,300,000 ordinary shares, paid February 26th, 1913, £57,500; and the following appropriations have been made to reserve fund as provided in articles of association, £22,027, and amount written off expenses of new issue and amalgamation, £6,826, leaving £2,970 to carry forward.

In the circular issued by the board on September 1st the profits were stated to be £357.000, before deduction of depreciation. The difference between this figure and the profit shown on the completed accounts is approximately £124,000, which is accounted for as follows: Depreciation and amounts carried forward in Austrian accounts, £52,000; amount written off in Austrian accounts against cost of drilling, £32,000; loss in respect of two of the Austrian companies deducted from total profits brought into the London accounts, £41,000.

Under the various agreements entered into at the time of the amalgamation, the sum of 6,644,807 kr. (£276.867) has been received in respect of guarantees that the liquid assets of various Austrian companies exceeded the liabilities to third parties existing at the date the properties were taken over. Of this amount £235,287 has been used for the purpose of depreciation in the accounts of the Austrian companies.

The total production was 262,380 tons, and the average price realised after deduction of royalties was 5.23 kr. per 100 kilos (£2. 3s. 7d. per ton). At April 30th thirty-four wells were in course of drilling, thirty-eight producing, and eight under repair, making a total of eighty. Since the close of the financial year further wells have been commenced, and the total number now in work, including the outlying districts, is eighty-three. An arrangement has been concluded with the Landesverband, with the approval of the Austrian Government, under which one-eighth of the company's production will be delivered to the Landesverband for the Government at the contract price until December 31st, 1915, and the company is free to deliver the remainder to its own refineries.

Attention is being directed to the new fields at Perehinsko and Rypne, where favourable results have been obtained at shallow depths, and it is expected that the lower oil zone will also be found in these districts, as deep wells, now in course of drilling, show encouraging indications. The production from these outside wells for the seven months ended November 30th was 1,660 tons, and this oil, being richer in benzine, can be realised at 12 kr. per 100 kilos (£5 per ton). It is intended to proceed with the drilling of further wells in these districts. The total quantity of crude oil delivered through the pipelines owned by the company was 678,030 tons. In the course of the year it has been possible to reduce expenses by closing several of the pumping stations, which became unnecessary when the various companies were amalgamated, and further economies can probably be effected in the near future.

An arrangement has now been concluded between the Landesverband and the Petrolea Aktien Gesellschaft (the shares of which are held by this company) whereby a community of interests has been created. Under this agreement the Landesverband will be represented on the board and take an active part in the management of the Petrolea Company, and this company's representation on the board of the Landesverband will be increased. The central administration of the four refineries acquired by this company has now been united in Vienna, and in this way the working has been facilitated and the expenses economised. It is intended to develop the sales department in accordance with modern requirements, in order to become as independent as possible of the fluctuations of the market.

The quantities of crude oil worked by the four refineries during the period under review are as follow: Trzebinia, 60,628 tons; Austria Drohobycz, 38,571 tons; Mährisch-Schönberg, 24,942 tons; Peczenizyn, 17,204 tons; total, 141,345 tons. The results from the refineries, although showing a satisfactory return on the capital invested, have not been so favourable as anticipated. The price of crude oil during the period has been high, which, in any case, would increase the cost of production, and result in less profits, unless a correspondingly high price could be obtained for the refined products. This has been impossible, owing to the absence of any working arrangement between the proprietors of the various refineries in Austria. Strong efforts have been, and are still being, made to prevent unnecessary competition, and it is hoped that an agreement will be made at an early date. Negotiations have been entered into with a syndicate who hold the patent rights for Austria in respect of a new process for refining crude oil. A trial plant is in course of erection at one of the company's refineries. The company has acquired, through the medium of one of the Austrian companies, the valuable oil property known as Statelands, in the southern part of Tustanowice, consisting of about 1,101 joch, immediately adjoining the original land owned by this company, and on which the large producing wells Borak and Dorrit are situate. The company has also acquired, through one of the Austrian companies, about 871 joch on the Popiele estate, adjoining the Boryslaw oilfield. These two properties, comprising a very large area of what may be considered proved oil territory, will afford opportunity for extensive development in the future.

In accordance with the terms of the contract for the purchase of the Statelands property, Mr. Charles Perkins has joined the board as representing the ordinary shareholders, and his election will be submitted for confirmation. Sir Henry Dalziel, M.P., resigned his position as a director of the company on August 28th, 1913, and his resignation was accepted on November 19th, 1913. The directors representing the ordinary shareholders to retire under the articles of association are Messrs. Henry and Albert Van den Bergh, who retire, and, being eligible, offer themselves for re-election. The directors representing the preference shareholders to retire, according to the articles of association, are Dr. Josef Kampers, and Mr. Bela Szilazi, who retire, and, being eligible, offer themselves for re-election. The election of these directors will be submitted to a separate meeting of preference shareholders, to be held immediately after the close of the general meeting, at Cannon Street Hotel, next Friday.

## THE EMBA CASPIAN OIL COMPANY, LTD.

On Monday the second ordinary general meeting of shareholders of the Emba Caspian Oil Company, Ltd., was held at Winchester House, E.C., Mr. A. M. Grenfell (chairman of the company) presiding.

Mr. A. Southern (assistant secretary) read the notice convening the meeting and the auditors' report.

The Chairman gave a brief outline of the position of the company, which, he stated, was still in the trying and expensive stages of organisation and construction, but was rapidly approaching the more interesting period of exploitation. The capital of the company was £3,210,000. Of the proceeds of the issued capital of £1,040,000, the sum of £420,000 had been paid up on the shares of the Russian company, the whole of which practically belonged to the Emba Caspian Company, and in respect of which further instalments would be paid by the English company as further working capital was required. Owing to some delay in transferring the properties, 1,070,000 shares due to the vendors had not yet been delivered, but it was anticipated that the transfer would take place shortly. The amount of £420,000 had been expended for organisation and preliminary exploitation and for the necessary machinery, etc., leaving a balance in the hands of the Russian company of £244,000, estimated to meet the requirements of the next eighteen months or two years. The balance, approximately £630,000, was held in London, and a sum of £36,000 received as interest, had enabled the company to pay all administration outgoings and to write £28,000 off preliminary and underwriting expenses.

With regard to the company's properties they were operating in three districts—Dossor, Makat, and Iskene. At the two first-named places the sinking of a number of wells had disclosed to the engineers that a pronounced fault traversed the field in a general north and south direction, and indicated that operations should be pursued on the east side of the fault line. This policy produced results which were not only very interesting, but were likely to prove very profitable. The Chairman referred specially to plot 185, where a gas issue was opened up at a depth of 900 ft. last August, which, after the eruption of water, spouted oil continuously for fourteen hours. Owing to the nature of the strata, difficulty had been experienced in cutting off the water, but the work was continuing satisfactorily, and two other wells were being sunk on the same plot, which were expected to produce profitable results. The Chairman reminded the shareholders that the company occupied an especially favourable position in that no royalties were payable in respect of the oil produced, and that, inasmuch as they owned lots alternating with those of the Ural Caspian Company, the prospects of the latter company were a good indication of what might reasonably be expected when their own company's properties were fully developed.

The resolution adopting the report and balance-sheet was carried unanimously, and the proceedings terminated.

## BRITISH BURMAH PETROLEUM COMPANY, LTD.

### Suggested Reduction of Capital.

The directors of the British Burmah Petroleum Company, Ltd., report for the year ended July 31st, 1913, that operations on revenue account resulted in a trading profit of £108,731, an increase of £102,005 on 1912. Other receipts, amounting to £4,882, make a total of £113,613. This sum, having regard to the financial position of the company, has been applied as follows: In payment of sundry charges in Burmah and in London, £27,290; debenture interest, £37,105; depreciation and written off, £48,904; leaving a balance carried forward of £314, which reduces the debit balance to £167,656.

At the commencement of the year the company held twenty-eight well sites under leases from the Twinzayos and possessed twenty-four of their own in the Yenangyaung district. During the year leases for twenty-nine more Twinza sites in that district have been executed; so that on July 31st, 1913, the company's holdings were increased to eighty-one well sites. Of the company's own twenty-four thirteen have been drilled, and of the remaining fifty-seven, twenty-two have either been drilled or are in course of drilling, leaving an ample margin for immediate requirements. In addition, the company's territory in other districts comprises about seven and a-half square miles, of which two are held under mining leases and the remainder by prospecting licences. The gross production of crude oil from all fields during the year was 326,377 barrels, against 138,627 for 1912. The company also acquired by purchase, for shipment to the refinery, 301,946 barrels crude oil from the Twinzas Oil Company, and 175,752 barrels from the Nathsingh Oil Company, under contracts. The throughput of crude oil at the refinery amounted to 27,844,922 gallons, from which kerosene, benzine, etc., were obtained, resulting in a trading profit of £108,731. Many improvements have been instituted at the refinery during the year, and the new bench of stills has been completed.

The production of the Rangoon Oil Company, Ltd., was 595,960.64 barrels of crude oil, an increase of 29,171.37 barrels. The net profit of the Rangoon Company for the year to March 31st, after disbursing £9,138 for interest, £2,327 for commissions and writing off £10,000 for depreciation, amounted to £26,517. This sum the directors utilised in strengthening the financial position.

During the year a further 8,191 shares of the Rangoon Oil Company were acquired in pursuance of the terms of the first mortgage debenture trust deed. The total number now held by the trustees represents upwards of 94 per cent. of the capital of the Rangoon Company. In the opinion of the directors the time has arrived for placing the finances of the Rangoon Oil Company on a satisfactory footing by the formation of an English company to acquire its property and undertaking, and to liquidate the loans incurred under the previous management, so that for the future its profits may be available for distribution as dividends. The question of the formation of an English company with the above objects in view is now under consideration.

The Burmah Oil Company have consented to modifications of the terms of the working arrangement, and this company will reap substantial benefit from the concessions.

In view of the improved position of the company and the additional profits now being earned, the directors are of opinion that it is desirable to reduce the nominal capital to such a figure as will be represented by assets; be in just relation to its profit-earning capacity; and at the same time enable losses incurred during the two previous years to be written off. They therefore will recommend at an extraordinary meeting on January 20th that the capital be reduced to £1,000,000, divided into 2,500,000 shares of 8s. each.

## HUNGARIAN NATIONAL PETROLEUM COMPANY, LIMITED.

On Tuesday, at Winchester House, London, E.C., the first ordinary general meeting of the Hungarian National Petroleum Company was held, Lord Ribblesdale, the chairman of the company, presiding.

In moving the adoption of the report, the chairman said their company obtained its certificate to commence business in October, 1912. A thorough geographical survey of the properties was at once put in hand, and that had now been completed. He was pleased to say that their expert's expectations were particularly favourable, and if only the geological indications were realised, there was a very prosperous future before the company. They were already carrying out an active drilling programme, and one well alone had produced over 500 tons of oil. Their one great asset was that they had the whole-hearted support of the Hungarian Government. They had already applied for most of the further area they were entitled to take up, and they had applied for all the likely oil territory in the Upper Iza Valley, thus ensuring their being able to develop their properties without the fear of having them damaged by careless neighbours. The crude oil so far met with was of excellent quality, and as Hungary imported some 400,000 tons of crude oil annually, they would have a ready market at a price of from £4 to £5 per ton. It would therefore be apparent to the shareholders that, even with wells giving only 10 to 20 tons per day, considerable profits could be made.

In concluding the chairman said that everything so far pointed to a long and prosperous future before the company.

The report was unanimously adopted.

## THE CONSOLIDATED OIL TRUST, LTD.

Sir Thomas Barclay presided at the annual meeting of the Consolidated Oil Trust, Ltd., held at De Keyser's Royal Hotel, London, E.C., on Monday, and in moving the adoption of the report, said that the development of the Roumanian oil property in which their company was largely interested had necessitated further expenditure during the year, but that had now ceased, inasmuch as under the terms of the contracts entered into they were now relieved from contributing to the cost of drilling operations. With regard to the new company which was to take over and develop the Roumanian property, that had been duly registered under the title of the Paclelc (Roumania) Oil Company, Ltd., and that the negotiations for its issue were so far advanced that its flotation might be anticipated early in the new year. Upon its being successfully floated their company became entitled to the refund of all their advances on account of the preliminary development work in addition to their *pro rata* of the profits arising from their shareholding in the original syndicate. He added that during the year an opportunity offered itself of acquiring a further holding in the syndicate on terms which the directors regarded as favourable, and that they now held a three-tenths interest in the whole of the undertaking. He hoped that its profits would give them a substantial return for their outlay when the syndicate received and distributed its purchase consideration after the flotation of the new company.

The report was adopted, and a vote of thanks to the chairman concluded the meeting.

## UNITED ROUMANIAN OILFIELDS, LTD.

In presiding at Tuesday's meeting of the United Roumanian Oilfields, Ltd., Mr. E. T. Boxall explained that the company was formed to take over the lease of a property in Roumania which had originally been held and worked by a French company. The French group in the first instance spent a great deal of money there, and eventually succeeded in getting oil, spending altogether more than £100,000 in initial development. It was at this point that the United Roumanian Oilfields came upon the scene, and made what the directors considered a very favourable arrangement, under which they took over the whole of the undertaking on a lease by the payment of a purchase price of £10,000 and the rest in ordinary shares paid to the syndicate. The company had the benefit of the whole of that expenditure on a 10 per cent. royalty basis of the gross profits, and it was the intention when their company was formed to get 20,000 preference shares subscribed with which they would be able to pay the £10,000 purchase price, and leave a sufficient sum to bring one of the wells into production. Unfortunately their anticipations were not fulfilled. Of the preference shares they only succeeded in placing £14,000, which only left £4,000 for further development. That capital had been exhausted, and it had been necessary for the directors to keep the company going with funds to the extent of about £8,000. In such circumstances it had been impossible for them to develop their properties at anything like a reasonable rate, and now negotiations were proceeding with a view to selling the property to another French group. If these negotiations were successfully carried through, their company would get back their money and a profit.

The report was adopted.

## MAIKOP MIDLAND OILFIELDS, LTD.

The report of the Maikop Midland Oilfields, Ltd., for the year ended July 13th last, states that the total production of crude oil during the period covered by the accounts was 114,158 poods, whilst from July 1st to November 30th last the output amounted to 199,280 poods. In view of the favourable developments on the Krimskaya field the Maikop Pipeline and Transport Company has constructed a pipeline from the field to the Vladikavkaz railway, and the company is therefore in a position to immediately market its output. Exploratory work at Krimskaya, where active development operations have been carried on during the period under review, has proved the existence of three distinct oil-bearing beds, the lowest being the most prolific, with oil of much lighter gravity than that from the upper sources. The operations which are being carried out at Krimskaya by this company and others have attracted considerable attention to the new field, and a number of plots have been acquired by Baku oil producers, so it is anticipated that next spring will see still greater activity in this district. With regard to the company's Maikop property, the directors are awaiting the results of the deep drilling now in progress before undertaking the further development of the company's interest on that field.

## GENERAL PETROLEUM PROPERTIES OF TRINIDAD, LTD.

On Wednesday the third ordinary general meeting of the General Petroleum Properties of Trinidad, Ltd., was held at Salisbury House, E.C. Mr. R. H. McCarthy, C.M.G., who presided, said the directors had delayed calling the meeting in the hope that they might have been able to announce that the sale of the property had been actually completed, that the transfer to the new company had taken place and the purchase consideration duly received. The transfer, however, had not been actually completed, but the directors hoped to hear any day that the matter had been concluded. The Central Mining and Investment Corporation, Ltd., who had formed a separate company, called Trinidad Leaseholds, Ltd., for the development of the properties in Trinidad, and to which company the property was to be transferred, had been in every way anxious to complete the transfer, and had for months past had a staff of eminent geologists working on the properties, laying out sites for wells and doing everything possible in order to proceed with active drilling operations the moment they were in possession.

The report and accounts were adopted.

## OIL CONCESSIONS OF MAYARO (TRINIDAD), LTD.

Presiding at the meeting of the Oil Concessions of Mayaro (Trinidad), Ltd., on Wednesday, Mr. Alexander Duckham said that they had had to contend with certain very serious difficulties during their operations. The first, and most trying, had been the abnormally wet weather, for after doing such preliminary work as seemed possible during what was known as the wet season, they had naturally relied on the dry season to permit them to rapidly complete road-making, draining, bridging, erection of buildings, and clearing of drilling sites. Unfortunately, the dry season had absolutely belied its name, and up to the time of his leaving Trinidad they had hardly had a day without rain. Even the well-built Government roads had become practically impassable, and the Government had prohibited the use of them for the transport of plant. Then, again, the bad weather had prevented their burning off the tremendous mass of trees and undergrowth which they had to cut down to make a clearing for their operations. Then as to boring operations. It would be seen from the report that they had changed the type of rig and had been compelled to make that change, although they should have preferred using the original star rig, which was one of the percussion type, because with such a rig it was possible to obtain specimens of the formation through which they were passing. On their property they had found that at some depth the ground was so soft and elastic a clay that the casing was constantly sticking. They had therefore decided to instal a rotary rig, which was ideally adapted for handling such ground. Boring had commenced on the rotary on the 4th inst., but at a depth of 320 ft. they had dropped the tools, and they had not as yet had further information. With the first well they must not expect very rapid drilling results, because the native labourers had to be trained, but there was no reason why they should not equal the results obtained in other parts of Trinidad. Notwithstanding all their troubles their expenditure during the year had only amounted to £11,000, as against an estimate of £13,000.

The report was adopted.

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## THE HELOUAN PETROLEUM COMPANY, LTD.

The fourth annual meeting of the Helouan Petroleum Company, Ltd., was held on Wednesday at St. Helen's Court. Mr. C. E. Wood presided, and moved the adoption of the report, pointing out that they had increased the company's interest in the Kotuku Oilfields Syndicate. This syndicate had during the year called up 6s. per share, thus making their shares fully paid. In August last the syndicate found it necessary to provide further capital in order to continue testing of the properties in their possession, and made a further issue of 10,000 shares of £1 each at par. The Helouan directors, considering it advisable to increase their company's interest, took up 1,043 shares in the new issue, on which the sum of 10s. per share had been paid. For the purposes of meeting these calls they had made a call on their own shareholders of 2s. per share. The subscription to the new issue of shares of the Kotuku Oilfields Syndicate carried the right to two shares of £1 each at par for every share taken up in the new issue, such option to be declared prior to September 1st, 1914. An allotment of 1,000 shares of £1 each fully paid in the Bolivar Concessions, Ltd., had been received as purchase of the company's interest in the Venezuelan Concessions.

OIL WELL LUCEY SUPPLIES

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IN TRINIDAD.

Extract from "The Petroleum Review" Report of the General Meeting of the Trinidad Oilfields, Ltd., December 27th, 1913:—
". . . . REMARKABLE DRILLING RESULTS secured during the period of his engagement
"with them. He sank several wells with great rapidity, and in particular one well, No. 22,
"was sunk to a depth of 1,400 ft. and completed in ten days, or an average of 140 ft. per day."
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# OIL FUEL FOR MARINE PURPOSES.

### A Summary of Mr. G. S. Gander's Paper before the Institute of Marine Engineers.

The methods of oil firing used in the merchant service might be classified as the steam with oil, the direct pressure, and the compressed air. In the first system the regulation of the pressure of the steam supply to the burners was an important item. From practical experience he found the most economical pressure ranged from 25lbs. to 35lbs. per square inch. The consumption of water for burner steam was not greater—in his opinion, it was less—than when the steam supply was at 60lbs., and several advantages accrued from the lower pressure.

The adjustment of the steam and oil valves needed very little practice, but if it was incorrect heavy smoke might be caused at the funnel and carbon deposited on the striking pillar. A thin smoke was rather desirable as an indication that steam was not being wasted up the funnel. Smoke could be immediately stopped by giving additional steam or decreasing the oil supply. The appearance of the flame in the furnaces, its colour and form, gave indications of economical combustion or otherwise. With perfect combustion the flame began two or three inches from the nozzle, the intermediate space being filled by a greyish vapour, and wrapped round the striking pillar in a blaze of brilliant white slightly tinged with yellow. Too brilliant and too white a flame meant that too much steam was being used. With too much oil the flame assumed a deeper yellow tinge, and streaks of dark would be observed in the stream from the nozzle. Excess of oil would cause smoke in the furnace, and if still more oil were supplied to the burner the mixture did not atomize and was deposited in a liquid state on the striking block.

So far as marine boilers were concerned the principal drawback of the steam system was the water consumption. In the case of the Murex this amounted to 10 tons a day, or, allowing 2½ tons for engine and auxiliary losses, to 7½ tons for burner steam. Assuming an average consumption of 14½lbs. of water per lb. of fuel, and a consumption in main boilers of 17 tons a day, the percentage worked out at 3. In actual practice, when making up the loss from an evaporator, the condensing and blowdown losses, considered with the efficiency of the evaporator, raised the ratio to five per cent. Thus, on a daily consumption of 17 tons, 0·85 ton of fuel was used for the burner steam supply.

The steam with oil system had the merit of simplicity, and where a cheap supply of fresh water was available, as in river-boats and for shore installations, would probably hold its own for some time yet on account of cheapness of first cost. In ocean-going steamers the direct pressure system was far more economical, the additional first cost being repaid in a few months by the five to eight per cent. saving of fuel that might be expected.

In the direct pressure system the oil was injected into the furnace by pressure from a fuel pump through a burner pierced at the end by a very minute hole, the fuel being heated and filtered before it reached the burner. The temperature at which the oil would give the most economical results depended on its nature and gravity. An average mixture of fuel oil would require to be heated to about 160° F., Tarakan crude to about 120°, and some of the heavier European residues to 240°. If the oil were too cold the spray would enter the furnace without igniting; if it were too hot it would ignite as it left the orifice. With the correct temperature the flame should appear at little more than an inch from the burner. The best results were obtained with a pressure of from 30lbs. to 40lbs. The colour of the flame gave the same indications as with the steam and oil system.

From the standpoint of the marine engineer oil fuel offered the following advantages :—The quantity of bunkers received could be quickly ascertained with accuracy, no tallying was required, and no trimming; no cleaning of fires being necessary no currents of cold air which might cause damage could enter the furnace; full and regular steam could be maintained in all climates without trouble; the steam was under perfect control, and on receiving an order by telegraph the engineer could increase or decrease the steam supply to the fuel pump without leaving the engine room; the combustion was more complete than with coal, and, therefore, the calorific efficiency was greater; the engineer, if necessary, was independent of his firemen; the boiler tops, bilges, and engine room and stokehold spaces could be absolutely clean, and there were no smoke or fumes to discolour paintwork or ashes to choke bilges; combustion was not affected by heavy weather—at times, when coal-firing might become impossible, the oil-burning vessel could carry on as under normal conditions, and the bilges were always clear in the event of a washout; with intelligent working oil fuel was practically smokeless.

Far less boiler trouble might be expected with oil than with coal. Perhaps the most frequent source of leaky tubes in boilers was the constant necessity for cleaning fires when coal was burnt, currents of cool air then passing to the back ends. With oil the only cleaning necessary was the occasional removal of small quantities of carbon. The furnaces were more evenly strained, especially with the systems where the whole of the furnace acted as a heating surface, and it was reasonable to suppose that the circulation was more efficient for the same reason.

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# THE DECLINE OF OIL-PRODUCING WELLS.

## POSSIBLE CAUSES AND SUGGESTED REMEDIES.

By Mr. L. G. HUNTLEY.

(*Continued from page 702.*)

THE flooding of fresh water no doubt accounts for some phenomenal production in fields where the recovery of petroleum from a sand rock has been relatively much higher than in other districts producing oil from a formation of equal thickness and porosity.

Attempts have been made to flood an oil-bearing formation so as to concentrate the oil in the formation and to effect a maximum recovery of the oil by water replacement. The practice is denounced by old operators in the Bradford (Pa.) field, and these efforts have met with indifferent success, not on account of fault in theory, but on account of insufficient data bearing upon underground conditions, varying porosities, etc., making intelligent prediction as to the movement of the oil an uncertainty. Clashing interests usually prevent such attempts on a large scale, wells belonging to rival operators being perhaps the first flooded although they may not be located so closely as other wells.

When water is admitted in large quantities it tends to flow out in various directions, the greatest flow following the line of least resistance. Owing to the differences in the resistance offered by sands of differing porosities and to varying amounts of gas in the rock, this movement of water (and oil) in regions of low monoclinal dip—say, 15 to 20 ft. to the mile—will extend up the dip as well as down. The movement will be particularly strong in the direction of very porous lenses and towards pumping wells, regardless of the effect of gravitation, the suction created by the pumping wells being sufficient to overcome the relatively slight tendency of the fluid to flow downward. This effect sometimes causes wells situated above the point of flooding to be affected ahead of the water wave and abandoned before those down the dip are affected. As an additional result the water wave, aided by irregularities in the structure and shape of the pool, will sometimes surround bodies of oil that were originally a part of the pool. Two or three such isolated pools are mentioned by Carrl as having been discovered on the outskirts of the Pithole oil pool after the central part had been flooded.

Again, lenticular pebble beds or lenses of unusually porous sand may form pockets in the upper part of an oil sand and may catch quantities of oil, which are retained as the main body of oil advances ahead of the water wave. These pockets furnish the oil in many wells that are entirely surrounded by flooded territory, yet continue to produce a little oil along with large quantities of water.

The entering water may shift the whole body of oil from its original position, the extent of such shifting depending on the dip and shape of the pool and its underground structure. The Oil Springs pool in Lambton county, Ontario, is an example. When the pool was first developed it produced from a shallow "pay" an open vesicular stratum in the Corniferous limestone. The wells were all dug and were cased with Scotch casing of large diameter. At the time of the Fenian raid the field was temporarily abandoned. When operations were later resumed it was found that the lower part of the casing in a great number of the wells had been corroded away, the wells had caved, and great quantities of fresh water from swamps on the surface had flooded the oil-bearing formation. Deeper drilling developed the present "pay" stratum at a lower depth, and the old wells were abandoned, as they could not, of course, be plugged.

In recent years wells drilled through this shallow stratum showed that the water had decreased and one well struck oil. Other wells were drilled, and an attempt was again made to pump off the water.

These operations developed the fact that after the spring rains or any large freshet quantities of fresh water seeping into this porous formation caused the water level to advance up the sides of the anticline upon which the pool is situated, carrying before it a considerable body of oil. By pumping certain wells, located at strategic points, in progressive rotation as the water and oil advanced or receded, considerable oil was recovered.

It was noticed that more oil was recovered upon the recession of the water than upon its advance. As the water advanced a part of the oil was probably caught and retained in the porous irregularities on the roof of the stratum. As the water receded these were again taken up by the main body of oil, increasing its quantity. This supposition is supported by the fact that a few wells would continue to produce a little oil with the water after the surrounding wells had all been flooded by the advancing water. This theory is illustrated in the sketch on page 665 of our issue for December 20th. 1 and 2 represent wells through which flooding takes place, whereas A, A′, B., and C represent wells pumped successfully for oil, as the water changes the relative position of the oil body.

One well is reported to have yielded 1,300 barrels of oil in three days before failing. As these shallow wells must be worked at great speed to effect a maximum recovery before being again flooded pumps of large diameter and quick stroke are used.

Owing to the unusual conditions and to the open vesicular nature of the oil-bearing stratum the effects of flooding could be observed to good advantage in the Oil Springs pool. In most pools the "sand" is less porous, seepage and movement of the water and oil are slower, and local conditions complicate the problem.

The main factors affecting the flooding of an oil-bearing formation may be summarized as follows (adapted from Carrl) :—

(*a*) Time of flooding—whether early in the process of operations, while yet a large percentage of oil (and gas) remains unexhausted, or at a later period after the supply has suffered from long-continued depletion.

(*b*) Composition of the formation—whether regular and homogeneous throughout, or composed of fine sand interbedded with irregular layers of gravel, in places lying near the top and in places near the bottom.

(*c*) Position of the pool—whether flat, as on a structural terrace, upon a monoclinal slope, upon the crest of an anticline, or at the bottom of a syncline.

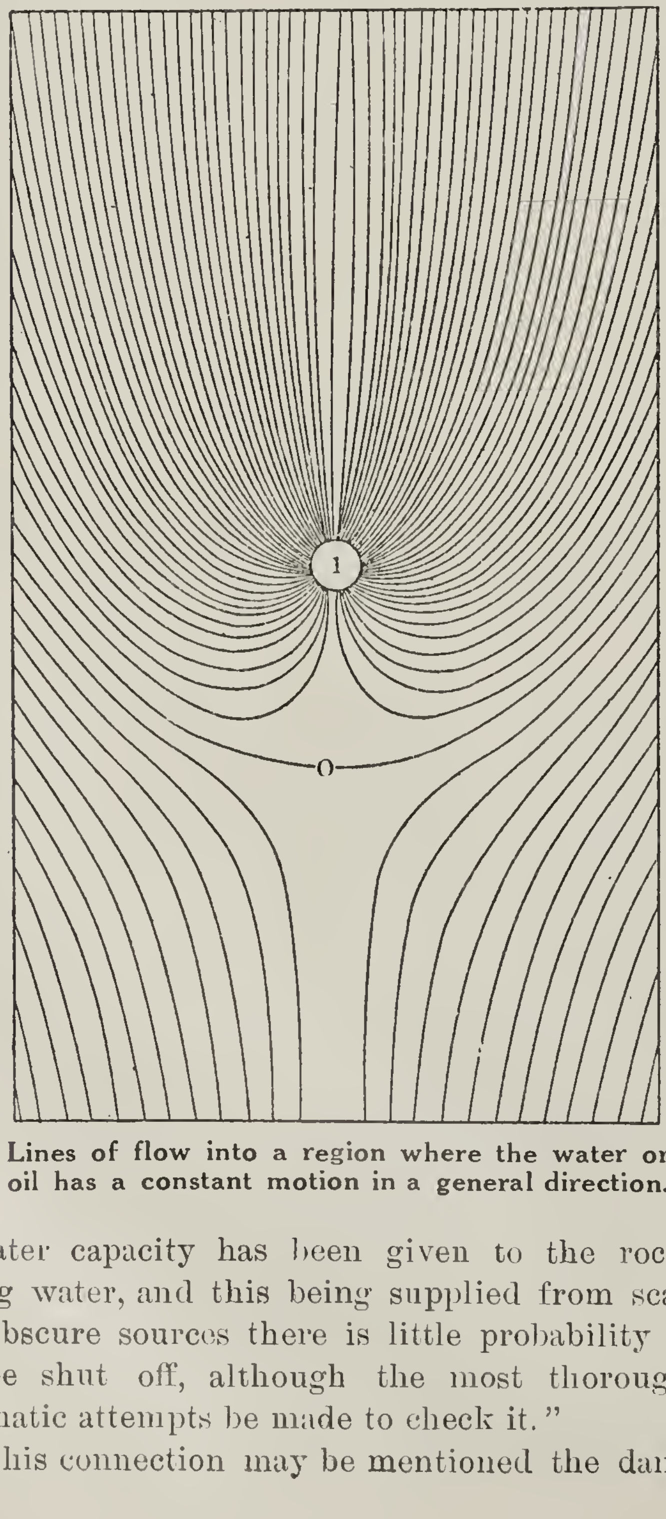
(*d*) Shape of the area being flooded.

(*e*) Position of the point at which water is admitted in reference to the situation of surrounding wells still pumping oil.

(*f*) Height of the column of water obtaining admittance.

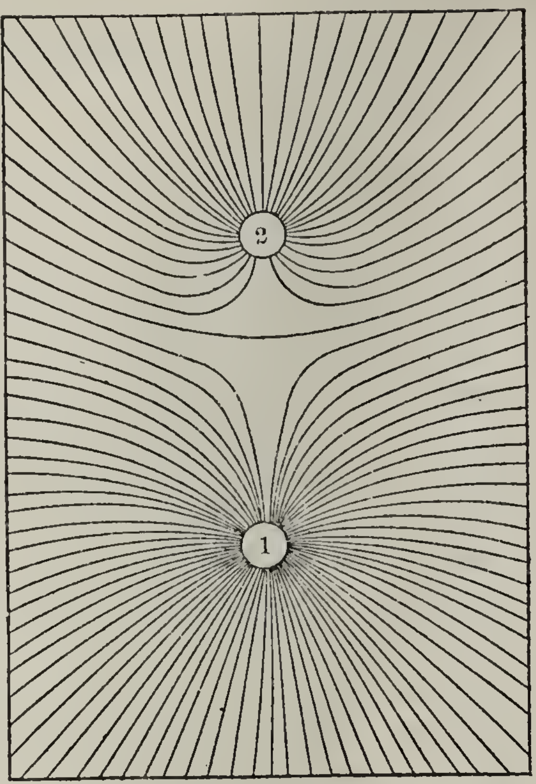
(*g*) Duration of the water supply. It will readily be seen that a temporary flooding in comparatively fresh territory, as from the drilling of new wells without casing, and from the overhauling of old ones having the seed bag attached to the tubing in the primitive way, must necessarily be a different affair from a flooding caused by a permanent deluge through unplugged and abandoned wells in nearly exhausted territory.

"In the former case the flood may be checked before much water has accumulated in the rock, and then the oil flow can be reclaimed after a few days of persistent pumping; and, in the latter, the recovery of oil is very uncertain, because, for its long-continued extraction, a greater capacity has been given to the rocks for storing water, and this being supplied from scattered and obscure sources there is little probability that it can be shut off, although the most thorough and systematic attempts be made to check it."



Lines of flow into a region where the water or oil has a constant motion in a general direction.

In this connection may be mentioned the danger of drilling wells off shore along large bodies of water, as has been done in the Selkirk gasfield in Ontario, along the Californian coast, and in the Tumbez oilfield in Peru. An unlimited quantity of water, once admitted, will result in the flooding of an entire district.



Lines of flow into two interfering wells, one of which has double the capacity of the other.

On the other hand, the continuous entrance of relatively small quantities of water through leaky seed-bag packers in the early days of the Pennsylvania oilfields may have furnished the means necessary to prevent the chilling of the oil that was expelled through the free escape of large quantities of gas. The water so entering may have accounted for the continued productiveness of some wells, preventing the chilling of the oil and the formation of waxy sediments, and have been one of the factors in some of the phenomenal productions of that period.

Although in drilling wells by the old wet method the heavy column of water may have prevented the early discovery of some oil-bearing strata; nevertheless, the gas was conserved until utilised in the expulsion of oil. Some modern wells drilled by the dry method, all water being cased off while drilling is under way, encounter, especially in the Oklahoma fields, a strong flow of gas, which is blown off before the expulsion of oil commences. Were these wells drilled "wet" there is no doubt that in some cases this premature blowing of gas would be avoided, the oil would commence to flow immediately upon pumping out the water, and the rock pressure of the pool would be conserved for the continued expulsion of oil, thus increasing the ultimate production of the district. This great waste of natural gas is one of the extravagant practices, and one to which little attention has been paid until now when the fields are on the point of exhaustion.

In an oil pool situated in a region where the formations have a pronounced dip it will usually be found the best practice to space wells closer across the dip than down the dip. The first sketch on page 666 of our issue for December 20th, together with the two sketches on this page, from Slichter's discussion of the mutual interference of artesian wells, show a number of ways in which oil and water are diverted by wells, either flowing or pumping. The first of the two sketches herewith given shows the lines of flow into a well in a region where the fluid has a constant motion in a general direction. If a second well were drilled in the neutral zone O, its production would be considerably smaller than that of well 1. This sketch, in connection with that on page 666, will indicate the advisability of spacing wells closer across the line of dip or flow than down the dip. In the West Virginia fields and in a few Oklahoma fields, where operators control large blocks of territory, wells are being spaced one well to 10 acres. In many fields the practice has been to space them much closer than this; and in many town-lot developments several wells have been drilled on an acre.

(*To be continued.*)

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co, 61, St. Mary Axe, E.C.

January 2nd, 1914.

There are no alterations in the prices of Refined Petroleum, which remain as follows :—Roumanian, 8d.; Russian, 8½d.; Galician, 8d.; American, 8½d.; American Water White, 9½d.

### LUBRICATING OILS

are unchanged, quotations being for :—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 12s. 6d.
American dark, from £11. 2s. 6d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL

is quoted 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

The market price is 80s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

The official price in London retail is 1s. 9d. per gallon for the best quality, and for the second quality 1s. 7d. per gallon.

### TURPENTINE.

This market is very firm, quotations being for spot, 32s.; January/May, 32s. 6d.; May/August, 33s. 6d.

## LIVERPOOL.

December 31st.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, December 3rd.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... ... ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| .. Candles, per pound ... ... ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, December 31st.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

PHILADELPHIA, December 31st.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, December 30th.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, December 30th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 37–37½ copecs per pood spot. Kerosene, 46–47 copecs. Residuals, 36¼–36½ copecs.

## ROUMANIA. December 30th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 5·50–6·25 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bana ... | 9·50–10·80 |
| Paraffin ... ... ... ... | ... | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA. December 30th.

Crude oil is quoted 8·58 kronen spot. Kerosene, 29½–30 kronen at Oderberg. Benzine, 690/700, 47 kronen; 700/710, 45 kronen, at Oderberg. Gas oil, 7·50–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date January 1st as follows :—

There is little change in the position and prices remain firm at last week's quotation, as under :—

| | | | | |
|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | 13/3 to 13/4½ per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | 18/7½ ,, 18/9 ,, |

F.o.b. Swansea. Tin lining and iron hooping extra, as usual.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

**Specially prepared for this Journal by the Customs House.** **All Rights Reserved.**

FOR THE WEEK ENDED DECEMBER 29TH, 1913 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Dec. | London— | | | |
| 22/11 | Lubricating & Fuel Oils Co. | Lub. | 62,420 | Batoum |
| 22 | Anglo-American Oil Co. | Spirit | 1,274,310 | Novorossisk |
| 22 | Union Lighterage Co. | Gas | 616,290 | Port Arthur |
| 22 | Anglo-Mexican Petroleum Products Co. | Fuel | 129,800 | P. Mexico |
| 22 | Bowring Petroleum Co. | Lamp | 656,210 | Port Arthur |
| 22 | ,, ,, | Spirit | 390 | P. Mexico |
| 22 | H. P. Wheatley & Co. | Lamp | 336,000 | Port Arthur |
| 22 | Hanseatic Maritime Agency | Lub. | 60 | Bremen |
| 22 | ,, ,, | ,, | 80 | ,, |
| 22 | L. Freeland | Lub. Gr. | 500 | Antwerp |
| 22 | London Oil Storage Co. | Lub. | 3,200 | Philadel. |
| 22 | Produce Brokers Co. | ,, | 8.000 | ,, |
| 22 | Mercantile Lighterage Co. | ,, | 7,600 | ,, |
| 22 | Hanseatic Maritime Agency | ,, | 330 | Bremen |
| 23 | Port Authority | ,, | 1,000 | Hamburg |
| 23 | S. Capon | ,, | 6,600 | Fiume |
| 23 | J. Spurling | Lub. Gr. | 240 | NewYork |
| 23 | Vacuum Oil Co. | Lub. | 27,510 | ,, |
| 23 | Union Lighterage Co. | ,, | 4,000 | ,, |
| 23 | Mordaunt Bros. | ,, | 2,500 | ,, |
| 23 | Scott's Wharf | ,, | 3,750 | ,, |
| 23 | Anglo-American Oil Co. | ,, | 50,000 | ,, |
| 23 | ,, ,, | ,, | 46,040 | Philadel. |
| 23 | Lubricating & Fuel Oils Co. | ,, | 2,750 | ,, |
| 23 | Worthington & Boler | ,, | 3,200 | ,, |
| 24 | Motor Petrol Association | Benzine | 1,660 | Brussels |
| 24 | Asiatic Petroleum Co. | ,, | 262,000 | Rotterdam |
| 24 | ,, ,, | ,, | 1,363,000 | P. Samboe |
| 24 | ,, ,, | ,, | 1,695,000 | Balek Pappan |
| 24 | Taylor Bros. | Lub. | 20 | New York |
| 24 | Mercantile Lighterage Co. | ,, | 40,200 | ,, |
| 24 | G. & H. Green | Lub. Gr. | 880 | ,, |
| 24 | Vacuum Oil Co. | Lub. | 30,540 | ,, |
| 24 | Bowring Petroleum Co. | ,, | 2,620 | Philadel. |
| 24 | Port Authority | ,, | 3,700 | Hamburg |
| 27 | ,, | ,, | 400 | ,, |
| 27 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 4,640 | ,, |
| 27 | L. Freeland | Lub. Gr. | 670 | Antwerp |
| 27 | Page, Son & East | Lub. | 400 | ,, |
| 27 | British and Foreign Wharf | ,, | 70 | ,, |
| 27 | Anglo-Mexican Petroleum Products Co. | Gas | 209,360 | Port Arthur |
| 27 | J. W. Cook & Co. | Lub. | 23,440 | Philadel. |
| 27 | J. Spurling | Lub. Gr. | 360 | New York |
| 27 | Wilkinson, Haywood & Clarke | Lub. | 1,200 | Philadel. |
| 29 | Hilton, Rider & Co. | ,, | 800 | ,, |
| 29 | J. Thompson | Lub. | 4,200 | Philadel. |
| 29 | Port Authority | ,, | 10,400 | New York |
| 29 | E. G. Boize | Lub. Gr. | 930 | Hamburg |
| 29 | ,, | ,, | 120 | ,, |
| | Liverpool— | | | |
| 25/11 | Meade-King, Robinson & Co. | Lub. | 600 | Batoum |
| 22 | ,, ,, | Spirit | 45,000 | Rotterdam |
| 22 | ,, ,, | Lub. | 26,520 | Philadel. |
| 22 | ,, ,, | ,, | 2,000 | ,, |
| 22 | C. Harrison & Co. | ,, | 9,320 | ,, |
| 22 | Fellows, Morton & Clayton | ,, | 3,320 | ,, |
| 22 | Bennett's Haulage, etc., Co. | ,, | 3,570 | ,, |
| 22 | W. B. Dick & Co. | ,, | 11,010 | ,, |
| 22 | Anglo-American Oil Co. | Lamp | 964,090 | New York |
| 22 | ,, ,, | Lub. | 40,200 | ,, |
| 22 | ,, ,, | ,, | 12,000 | ,, |
| 22 | Worthington & Boler | ,, | 4,000 | ,, |
| 22 | W. B. Dick & Co. | ,, | 7,800 | ,, |
| 22 | Bowring Petroleum Co. | ,, | 2,140 | ,, |
| 22 | Meade-King, Robinson & Co. | Lub. Gr. | 800 | ,, |
| 22 | ,, ,, | ,, | 7,800 | Baltimore |
| 22 | ,, ,, | M. Colza | 2,600 | ,, |
| 22 | A. Hopps & Sons | Lub. | 2,720 | ,, |
| 22 | Burnaby & Chantrell | Lub. Gr. | 1,570 | New York |
| 23 | Liverpool Warehousing Co. | Lub. | 3,200 | ,, |
| 23 | Vacuum Oil Co. | ,, | 14,680 | ,, |
| 23 | ,, | ,, | 19,900 | ,, |
| 23 | White Star Line | ,, | 40,000 | ,, |
| 23 | Burnaby & Chantrell | Lub. Gr. | 10,760 | ,, |
| 23 | ,, ,, | ,, | 8,520 | St. John's |
| 23 | Pickford's | Lub. Oil and Paste | 210 | Hamburg |
| 23 | J. T. Fletcher & Co. | Lub. Gr. | 170 | Antwerp |
| 24 | Pickford's | Lub. Oil and Paste | 930 | Hamburg |
| 24 | Meade-King, Robinson & Co. | Lub. Gr. | 2,600 | Baltimore |
| 24 | ,, ,, | Lub. | 16,800 | ,, |
| 24 | ,, ,, | Lub. Resid. | 2,500 | Batoum |
| 27 | Vacuum Oil Co. | ,, | 13,760 | N. News |
| 29 | Bramwell, Fern & Co. | ,, | 2,650 | St. John's |
| 29 | A. Hopps & Sons | Lub. | 26,120 | Baltimore |
| 29 | Pickford's | Lub. Paste | 120 | Hamburg |
| Dec. | Boston— | | | |
| 24 | W. F. Beaumont | Lub. | 220 | Hamburg |
| | Bristol— | | | |
| 22 | E. Stock & Sons | Lub. Gr. | 240 | ,, |
| 22 | J. R. Bush | Lub. | 27,800 | New York |
| 22 | Ford & Canning | ,, | 1,060 | ,, |
| 22 | Asiatic Petroleum Co. | Spirit | 645,000 | Rangoon |
| 24 | Pickford's | Lub. | 120 | Hamburg |
| 27 | C. Hill & Sons | ,, | 11,000 | New York |
| 27 | Pickford's | ,, | 450 | Antwerp |
| 27 | Pragnell & Co. | ,, | 240 | ,, |
| 29 | H. Pritchard & Co. | ,, | 1.050 | ,, |
| 29 | First Anglo-Russian Oil Co. | ,, | 240 | Hamburg |
| 29 | Ford & Canning | ,, | 3,180 | New York |
| 29 | H. Pritchard & Co. | ,, | 2,690 | ,, |
| | Cardiff— | | | |
| 27 | Collins & Partners | Lub. Gr. Bricks | 60 | Antwerp |
| 27 | ,, ,, | Lub. | 1,000 | ,, |
| | Grimsby— | | | |
| 24 | J. Sutcliffe & Son | ,, | 150 | ,, |
| | Goole— | | | |
| 22 | Goole Steamship Co. | ,, | 500 | Hamburg |
| 24 | ,, ,, | ,, | 160 | ,, |
| | Harwich— | | | |
| 24 | Great Eastern Railway | ,, | 320 | Antwerp |
| | Hull— | | | |
| 22 | Wilson's & N. E. Railway | ,, | 320 | Ghent |
| 22 | ,, ,, | ,, | 360 | Hamburg |
| 24 | T. Wilson, Sons & Co. | ,, | 27,680 | New York |
| 27 | Wilson's & N. E. Railway | ,, | 1,080 | Hamburg |
| 27 | ,, ,, | ,, | 1,000 | Antwerp |
| 29 | W. Gilyott & Co. | ,, | 49,040 | NewYork |
| | Manchester— | | | |
| 22 | Bramwell, Fern & Co. | ,, | 660 | Philadel. |
| 22 | Liverpool Storage Co. | ,, | 6,020 | ,, |
| 22 | ,, ,, | ,, | 1,870 | New York |
| 22 | Diamond Lubricating Co. | Lub. Gr. | 2,750 | ,, |
| 22 | Anglo-American Oil Co. | Lub. | 29,090 | ,, |
| 23 | Worthington & Boler | Turps. Sub. | 1,150 | Philadel. |
| 23 | D. Currie & Co. | Lub. | 3,460 | Hamburg |
| 23 | Bramwell, Fern & Co. | ,, | 16.960 | Philadel. |
| 23 | J. T. Fletcher & Co. | Lub. Gr. | 160 | Antwerp |
| 23 | Anglo-American Oil Co. | Lub. | 32,390 | Philadel. |
| 24 | F. Schofield & Co. | ,, | 7,620 | New York |
| 24 | ,, | M. Colza | 5,080 | ,, |
| 24 | McLiners, Ltd. | Lub. | 2,600 | Philadel. |
| 24 | Meade-King, Robinson & Co. | ,, | 32,000 | ,, |
| 24 | ,, ,, | ,, | 4,160 | Hamburg |
| 24 | W. Hodgson & Co. | ,, | 1,380 | Riga |
| 24 | T. Wilson, Sons & Co. | ,, | 1,440 | ,, |
| 24 | Anglo-American Oil Co. | Lamp | 846,000 | New York |
| 24 | Worthington & Boler | Lub. | 5,670 | Philadel. |
| 24 | D. Currie & Co. | Lub. Gr. | 40 | Hamburg |
| 24 | ,, | Lub. | 1,820 | ,, |
| 24 | B. Fern & Co. | ,, | 1,050 | St. John's |
| 24 | Slatter & Co. | Lub. Oil and Gr. | 530 | Philadel. |
| 27 | McLiners, Ltd. | Lub. | 13,240 | ,, |
| 29 | Crew, Levick & Co. | ,, | 8,410 | ,, |
| 29 | ,, | M. Colza | 1,250 | ,, |
| 29 | G. B. Taylor | Lub. | 1,200 | New York |
| | Newcastle— | | | |
| 24 | P. H. Matthiessen & Co. | ,, | 210 | Bergen |
| 29 | ,, | ,, | 550 | ,, |
| | Swansea— | | | |
| 24 | R. Turpin & Co. | ,, | 1,400 | New York |
| | Glasgow— | | | |
| 22 | Anchor Line | ,, | 67,880 | ,, |
| 23 | Clyde Shipping Co. | ,, | 5,540 | Antwerp |
| 27 | Allan Bros. & Co. | ,, | 58,120 | Philadel. |
| 27 | ,, ,, | ,, | 44,720 | ,, |
| 29 | ,, ,, | ,, | 1,080 | ,, |
| 29 | ,, ,, | Lub. Gr. | 800 | ,, |
| | Grangemouth— | | | |
| 16/12 | "Order" | Fuel | 83,000 | Kustendje |
| 24 | Jas. Currie & Co. | Lub. | 1,920 | Hamburg |
| | Leith— | | | |
| 23 | G. Gibson & Co. | ,, | 440 | Antwerp |
| 23 | ,, | ,, | 1,200 | Ghent |
| 23 | G. V. Turnbull & Co. | ,, | 14,700 | Philadel. |
| 24 | Jas. Currie & Co. | ,, | 7,200 | Hamburg |
| 24 | W. G. Yooll & Co. | Lamp | 2,610 | ,, |
| 27 | ,, ,, | ,, | 4,360 | ,, |
| 27 | Jas. Currie & Co. | Lub. | 120 | ,, |
| 29 | G. Gibson & Co. | ,, | 560 | Antwerp |
| | Belfast— | | | |
| 24 | Anglo-American Oil Co. | Lamp | 752,450 | Philadel. |
| | Dublin— | | | |
| 24 | Anglo-American Oil Co. | ,, | 936,280 | ,, |
| | | | 11,997,500 | |

# The Petroleum Review.

*Founded by* PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**Russia's Crude Oil Production.**

THAT the Russian Empire has turned the corner, so to speak, in regard to the output of crude oil from its various fields, seems now a matter beyond all doubt. For years there has been a steady decline from the Baku areas, but during the past year the crude output appears to have been slightly on the increase, though the actual figures cannot as yet be to hand inasmuch as the year does not finish until next week. The Grosny fields, too, will show an increased output, a remark which also applies to the regions of Tcheleken, Ferghana and the Ural-Caspian district. In the case of the island of Tcheleken, for instance, the output for 1913 will be over a quarter of a million tons, which amount is practically one quarter of that of the Grosny fields to-day. As to the Ural region this is making rapid headway, and its output for 1913 will certainly be four times that of 1912, or, approximately, 70,000 tons. The Maikop field is the only region in Russia where the crude oil output for the year shows diminution, but when the circumstances are studied this decrease is not surprising, for apart from the companies represented by Mr. George Tweedy's groups, little or no tangible work has been accomplished during the twelve months. It is really a pity that Maikop, with all its potentialities, has not been given a fair opportunity, for, in spite of the numerous English companies who once looked to the field for big things, not ten per cent. have seriously set out to prove its riches.

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**A Step in the Right Direction.**

THERE are few governments that have been so liberal in supporting the petroleum industry as a whole as has been that of the United States. Its Bureau of Mines has for years rendered valuable service, and as time goes on its work increases both in volume and importance, until now Secretary Lane of the Interior Department is to ask for appropriations to the Bureau for the current year of 30,000 dollars. There is no doubt that the magnitude of the petroleum industry in the United States, combined with the rapid decline of many of the older fields, emphasises the need of conducting inquiries concerning the method of mining and the treatment of crude oils with a view to their economical and efficient development. As illustrating the need for investigations concerning petroleum and natural gas it is pertinent to note the following extract from a recent report received by the Bureau of Mines regarding the Cushing field of Oklahoma: "The maximum yield of oil from the Cushing field has never reached 30,000 barrels per day. For a long period it has been considerably less than 20,000 barrels per day. The average value of oil at the highest market quotation probably lies below $20,000 per day. During this time there has been wasting from drilling wells not less than 100,000,000 cubic feet of gas, while the waste from flowing wells is perhaps in excess of 200,000,000 cubic ft., making a total daily waste of 300,000,000, which, at the domestic rate of 25 cents per thousand, would be $75,000 per day in fuel, or a matter of perhaps $20,000 a day to the oil producer. It is not only possible to conserve this gas, but it is also possible in many cases to so manage the wells that they can furnish oil without allowing the gas to escape." Thus it is evident the Bureau is justified in seeking an additional appropriation in order that it may continue to carry on its good work.

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**An Unwarrantable Policy.**

THE announcement which we have received to the effect that another International Petroleum Institute has been formed at Karlsruhe, Germany, from the International Central Committee for the Standardisation of Petroleum Products, will be learned with great regret by those who have followed the movements of the committee since its appointment. To our mind the step is entirely unwarrantable, the more so when we recollect how this international committee was appointed. When Dr. Dvorkovitz founded the first Petroleum Congress in Paris, in 1900, and then applied to the various Governments to send official representatives, a central committee in Paris was then formed with national committees practically all over the world. At the last meeting of the Congress in Roumania, members were elected to act upon the various national committees for the standardisation of the methods of testing petroleum products, and the result of the deliberations of these committees was to be presented to a properly constituted Congress, which should have taken place in Galicia. Unfortunately, this Congress had to be postponed, and so the members of the various committees met at Vienna, and constituted themselves into an International Petroleum Committee, though it is difficult to see what power they possessed to take this step. The result of this move we now plainly see: the Roumanian committee has turned itself into an "International" Petroleum Institute, and a similar "International" Institute appears to have sprung up at Karlsruhe. We are bound to express the emphatic opinion that such a policy is quite unwarranted, and will not meet with the approval of any properly constituted congress, and we much regret that Dr. Ubbelohde, who in the capacity of secretary to the committee has rendered much service to the petroleum industry, should have given his support to such a proposal, the effect of which will be decidedly harmful, inasmuch as the support of the various Governments is in future bound to be a minus factor. The time has no doubt come when a Petroleum Congress should be called, say in London, whereat all matters appertaining to future policy should be for once and for all clearly set forth.

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## SERIOUS MISHAP TO THE "COWRIE."

LAST Monday, whilst proceeding out of San Francisco harbour, the Shell Company's oil tanker "Cowrie," struck the bar, and was badly damaged. Eventually the vessel was lightened of 7,000 barrels and then proceeded to the discharging berth. Several of her tanks are reported to be badly leaking.

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## NEW YEAR HONOURS FOR PROMINENT OILMEN.

THE celebration of the twenty-five years jubilee of Mr. C. J. K. Van Alst, the president of the Royal Dutch Company, took place on January 1st, and for services rendered the Queen of Holland has graciously presented Mr. Van Alst with the Order of the Orange Nassau. The REVIEW would convey its best wishes to Mr. Van Alst for a long and prosperous life.

* * *

MR. EMIL G. STRAUSS, of Berlin, a director of the European Petroleum Union, in consideration of his services rendered in connection with the introduction of Roumanian petroleum via Donau to Regensburg, has been honoured by King Ludwig III., the King of Bavaria, with an Order of Saint Michael, Fourth Class.

* * *

THE King of Roumania has bestowed orders of the first class for services rendered to the petroleum industry upon Mr. Arthur von Gwinner, the president of the Steaua-Romana, Mr. M. E. Hennemann, Mr. Emil Strauss and Mr. Roger Serres, all directors of the Steaua-Romana, and to Mr. Rudolf Roessler, director of the Roumanian branch of the German Petroleum Company, as well as upon Mr. Alex. Beldimann, engineer, and Mr. J. Dekker.

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**Dissolution of Partnership.**—We are asked to state that the partnership hitherto existing between Messrs. Benjamin & Gee, has been recently dissolved by mutual consent. Mr. Joseph Gee, who has taken large offices at 8, Waterloo Place, Pall Mall, S.W., is well-known as the Chairman of the West Ural Petroleum Company, Ltd., Constantine Oilfields, Ltd., and Constantine Properties, Ltd., in addition to being associated with other petroleum enterprises.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 3rd was 123,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended January 4th was 278,205 poods, or about 4,487 tons. The total production for the year from January 14th to January 4th was 13,484,645 poods, or about 217,494 tons. The total production for the corresponding period last year was 16,134,280 poods, or about 260,230 tons. Price of crude oil at Baku is now 37¼ copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended December 27th was 18,620 poods, or 300 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended January 4th was 103,600 poods, or 1,670 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 3rd was 118,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended January 5th was 23,628 poods (381 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended January 3rd was 5,800 poods (94 tons).

BRITISH MAIKOP OIL COMPANY, LTD.– Production for week ended January 4th was 15,815 poods, or 255 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended January 3rd, 112,503 poods, or 1,815 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The latest production for week ended January 6th was 425,000 poods, or 6,855 tons. Corresponding period last year, 1,685 tons.

BIBI-EIBAT PETROLEUM COMPANY, LTD.—Production for the week ended January 4th, was 102,600 poods, or 1,655 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended January 3rd was 5,000 poods, or 81 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended January 3rd was 14,893 poods (240 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended January 3rd was 1,097 poods (18 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended January 3rd was 2,300 poods, or 37 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone: City 8840 (4 lines).
LONDON, E.C.

# Premier Oil and Pipeline Company, Ltd.

## ANNUAL MEETING OF SHAREHOLDERS.

Disorderly Scenes.

The third annual general meeting of the shareholders of the Premier Oil and Pipeline Company, Ltd., was held yesterday (Friday), at noon, in the Great Hall of Cannon Street Hotel, City. The meeting proved to be the most important which has been held in the City for some years, the general interest among the 13,000 shareholders being intensified by reason of the unsatisfactory financial result of the company's operations during the year ended last April, combined with the fact that a self-appointed committee of shareholders had, a few days prior, issued a circular condemning the board's policy, and asking shareholders for their proxies. Several police officers were stationed at the doors, the Great Hall being crowded, and as the directors took their seats they were received with applause mingled with hisses.

The company's chairman (Mr. E. T. Boxall) presided, and was supported by a full board, several of the Austrian members being present.

Mr. Boxall, in moving the adoption of the report and accounts, the former having appeared in the last issue of the Review, on page 23, commenced by expressing his pleasure at seeing such a large number of shareholders present, for it gave him an opportunity of putting before them full and explicit information concerning the operations of that company for the past financial year, and also to allude to the future possibilities. In view of the numerous inaccurate statements which had been sent broadcast by the self-appointed committee, he wished to deal with the affairs of the company in the fullest possible manner, under four headings: (1) The circular sent out to the shareholders by the committee; (2) the results of the company's operations; (3) the various items on the balance sheet; and (4) the company's position and its future prospects.

The Chairman then proceeded, with slight interruptions, with a most interesting speech, which lasted almost an hour and a-quarter. Speaking first upon the circular issued, he said that both his colleagues and himself felt that the criticisms made by the gentlemen who composed that committee were of a very trivial character, and no suggestion had been made by them which could in any way benefit the company. In fact, from start to finish the circular showed a complete ignorance of the affairs of the company, and contained many distorted facts. A point was made of the delay in calling that meeting together, but when the shareholders recollected that there were no less than eighteen separate Austrian companies in their organisation, it would be apparent that it took some considerable time in order to present complete accounts. However, that delay was exceptional owing to its being the first year of the operations of the company, and in future the accounts would be prepared in shorter time.

The speaker then referred to the suggestion contained in the committee's circular that the German directors who represented the preference shareholders had put forward a reconstruction scheme which was calculated to benefit that class of shares. As a matter of fact, though the matter had been considered, it was decided by the board that it should be dropped because there was no urgent need for additional capital, though that was a matter he would refer to later. The committee had also gone out of its way to attack Mr. Charles Perkins, who had recently been appointed a director of the company. The speaker regretted that inasmuch as Mr. Perkins was a well-known and experienced oil man, with twenty years' knowledge of the Galician fields, and his advice would be specially useful to the company. He therefore hoped that the shareholders would take no part in any vote which would adversely affect the confirmation of the election of Mr. Perkins to the board.

As to the results of the company's operations during the year, they had realised a profit of £235,675, as against the estimated profit of £562,000, which the directors thought would be realised. That was accounted for by the fact that instead of the refineries yielding a profit of £190,000, it had only amounted to about £30,000. Then the pipeline and storage had yielded a profit less by £100,000 than the directors anticipated, while the profits from the crude oil had also greatly decreased. The decrease in the profits from the refineries was accounted for because instead of working 170,000 tons of crude oil, upon which the figures were based, they only worked 140,000 tons. Those were losses which could not be foreseen, and as a matter of fact other refineries in Galicia were in the same position; in fact, some had failed to earn any profits at all. The absence of a working agreement among the refiners was the cause of the trouble, and it was a matter which was still engaging attention. But it was a difficult matter, inasmuch as, before any working agreement could be arrived at, it was necessary to get thirty different refining interests in Austria into line. There was, however, an agreement in connection with the sale of paraffin wax, which product was now being sold at profitable prices, but in regard to other petroleum products there was still great competition, and as a result there were also reduced profits. The position of the refiners was indeed a ridiculous one, for whereas the capacity of the refineries was 1,800,000 tons per annum, the total crude oil production was only 1,120,000 tons. It would thus be seen that those refiners who did not control their own production would be faced with a very serious position in the near future. Their company, he was pleased to say, had their own production, and sufficient to keep their refineries going without having to depend upon outside supplies of crude oil. There was no doubt that the present moment was favourable for creating a working agreement among all the refineries; still competition continued unabated for reasons which were entirely incomprehensible. Many attempts had been made to bring about a satisfactory solution of the difficulty in which refiners found themselves, and it was to be hoped that the position would improve, and thus enable the refineries to earn the large profits which they doubtless could obtain. As to the company's pipelines, when the amalgamation was brought about it was considered that the facilities they offered ought to be included in the scheme, for it was necessary that a company like theirs which produced and refined oil should have its own storage and pipeline facilities. The losses incurred upon the pipelines would in future, he believed, be obviated, and they would become a portion of the company's profitable undertakings; in fact, a profit had been earned upon the pipelines for the past six months, the figures for which period he had before him. During that time the company had produced 112,250 tons of crude oil, and the price at which that had been credited had been 8 kr. per 100 kilos, showing a profit of 4,360,000 kr., before writing off depreciation.

As the shareholders would readily understand, a considerable amount of organisation work had been carried out during the year under review in bringing the eighteen different companies amalgamated under one organisation. At the time of the amalgamation each company had its separate staff, and it was necessary to re-arrange matters upon a more economical basis. With reference to the mining of the crude oil, a central office had been opened at Vienna to deal with this part of the administration, while the administration of the pipeline department had been transferred to Lemberg. Upon the company's properties they were arranging a gas plant for collecting the gas produced at some of the wells, and that gas was being distributed to all the wells for use as fuel in the Boryslaw and Tustanowice district. The cost of the plant had been about £12,000, and when he mentioned that during the past year their consumption of oil at the wells for fuel had amounted to 8,000 tons, it would be seen that the new gas plant would bring about enormous economies and save its original cost in about six months. The pumping plant at the pipelines was also being fed with natural gas from the wells—another great saving.

As to drilling, their company recognised how important it was to adopt an active programme, and at the present time they were sinking new shafts in Tustanowice and in the Popiele district. If they only continued such active drilling work there was no doubt that their profits would greatly increase, for, supposing they put down forty shafts upon their areas where there were shallow oil sands, the most conservative estimate was that they would have an increased profit of over £300,000 per annum.

He was pleased to say that, in connection with their refineries, they had entered into negotiations with a syndicate controlling a new process for refining oil. That process had been adopted in America, and as a result of treating their own crude oil with the new method it had given 50 per cent. of benzine, as compared with their usual 5 per cent. obtained. A trial plant was now in course of erection at their refineries, and if the tests confirmed the claims which had been put forward. the results would be of inestimable benefit to their company.

In conclusion, the speaker referred to the future, expressing the opinion that if the company only had a larger working capital with which to develop its valuable and extensive properties, the shareholders would have no cause to be dissatisfied with the results obtained, for there were enormous possibilities before their company. Mr. Boxall then moved the adoption of the report and accounts. which motion was seconded.

Mr. Todd (barrister-at-law) then rose and, amid much commotion, moved an amendment that the report should be adjourned *sine die*, and that a committee of shareholders should be appointed to investigate the promotion of the company, the persons interested in it, and the general conduct of the promoters and the present directors.

Mr. Simmonds seconded the amendment, a large number of shareholders speaking in favour of it.

Eventually the amendment was carried upon a show of hands, but a poll was demanded by the directors, although Mr. Sinclair. one of the members of the board, said he agreed with the amendment in its entirety. The poll will take place next Thursday.

The meeting lasted nearly four hours.

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## DECEASE OF MR. MAURICE EPHRUSSI OF PARIS.

WE deeply regret to announce the decease of Mr. Maurice Ephrussi of Paris, a gentleman closely associated with the oil interests of the Rothschilds, and having been largely instrumental in encouraging this firm to enter the petroleum business.

## THE FORTHCOMING WORLD'S OIL EXHIBITION.

### NO POSTPONEMENT.

A MEETING of the Council of the World's Oil Industries Exhibition was held yesterday—Friday—afternoon at Cannon Street Hotel, London, E.C., Dr. Paul Dvorkovitz presiding over a large attendance.

The members discussed the rumours which have been made public during the past few days that a probable postponement of the Exhibition might be decided upon.

The Chairman urged that a postponement would serve no useful advantage, inasmuch as the Organiser had already secured the hearty support of a large number of influential concerns, and had in many other ways made all preparations for an interesting Exhibition.

It was thereupon agreed that the Exhibition should take place as originally arranged at Earl's Court next March.

◆

**The Union of Petroleum Producers.** — The Union of Petroleum Producers has elected Mr. N. N. Seceleanu as president of the committee of the International Petroleum Institute, and has discussed the question of liquid fuel and of ways of cheapening it. It has also decided to approach the Minister on the question of the use of motors for petroleum exportation, and, finally, has been discussing the tariffs on the transport of crude benzine on the Austrian and German railways.

◆

## PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING DECEMBER.

### THE SHIPMENTS INTO VARIOUS PORTS.

THE various shipments of petroleum products into the U.K. ports during December are given in the following table. The total imports for the month were 29,196,640 gallons, or 8,714,255 gallons less than in November.

| PORT. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 7,900 | — | — | 15,000 | — | — |
| Barrow ... ... ... | — | — | — | — | 1,135,000 | — | — |
| Belfast ... ... ... | 741,720 | 2,010 | — | — | — | — | — |
| Boston ... ... ... | — | 1,890 | — | — | — | — | — |
| Bristol ... ... ... | 3,332,390 | 238,280 | — | 104,690 | 645,000 | 251,720 | 2,680 |
| Cardiff ... ... ... | — | 3,010 | — | — | — | — | — |
| Cork ... ... ... | 140 | — | — | — | — | — | — |
| Dublin ... ... ... | 936,280 | — | — | — | — | — | — |
| Dundee ... ... ... | — | 40 | — | — | — | — | — |
| Glasgow ... ... ... | — | 411,060 | — | — | — | — | 3,160 |
| Gloucester ... ... ... | — | 880 | — | — | — | — | — |
| Goole ... ... ... | — | 1,260 | — | — | — | — | — |
| Grangemouth ... ... | 3,600 | 4,050 | — | — | — | 650,000 | — |
| Grimsby ... ... ... | — | 3,630 | — | — | — | — | — |
| Harwich ... ... ... | — | 6,700 | — | — | — | — | — |
| Hull ... ... ... | 530,500 | 292,160 | — | — | — | — | — |
| Leith ... ... ... | 20,560 | 42,760 | — | — | — | — | — |
| Limerick ... ... ... | — | 240 | — | — | — | — | — |
| Liverpool ... ... ... | 961,150 | 1,489,370 | 34,390 | — | 45,000 | — | 33,530 |
| London ... ... ... | 3,505,630 | 913,140 | — | 2,857,640 | 4,552,610 | 1,353,250 | 5,500 |
| Manchester ... ... | 1,525,290 | 1,064,040 | — | — | — | 669,830 | 12,650 |
| Middlesborough ... ... | — | 960 | — | — | — | — | — |
| Newcastle ... ... ... | — | 8,070 | — | — | — | — | 200 |
| Newport ... ... ... | — | 4,840 | — | — | — | — | — |
| Southampton ... ... | — | 2,670 | — | — | — | — | — |
| Sunderland ... ... | 433,760 | — | — | — | — | 364,390 | — |
| Swansea ... ... ... | — | 10,120 | — | — | — | — | — |
| Totals ... ... | 11,991,020 | 4,469,380 | 34,390 | 2,962,330 | 6,392,610 | 3,289,190 | 57,720 |

# The Organisation of Boring in the Baku District.

(*Translated from "Petroleum.*")

(*Continued from page* 700.)

THERE are several kinds of cementing in use, each serving a special purpose, and all of them demand considerable study, besides which there is also considerable time and work caused by preparing the well for cementing and by cleaning it, after the cementing is completed, from cement and the artificial cork. Usually at upper depths cementing of the shoe alone is undertaken, and only at depths of 200-250 sagenes do they recur to a general cementing in order to shut off the upper waters. Meanwhile, circulation of waters between the strata of various horizons forces the water to penetrate and inundate the well, and causes the process of boring to be unnecessarily slow, and, generally speaking, the inundation of the well with the Baku method—that is to say, the dry method—is much quicker than with the working boring method.

Considering that the Baku petroliferous areas contain many petroliferous horizons, from which an enormous quantity of petroleum and sand has already been extracted, and in which, therefore, there are formed many new passages between the separate strata, it is easy to understand that the upper waters have obtained an easy access to the petroliferous horizons, laying at depths of 300 to 400 sagenes. In fact, the general complaint at Bebe-Aibat is that 90 per cent. of water is obtained with the oil. The Bebe-Aibat oilfields have not until now been sufficiently protected against water inundations, which is the real cause of the crisis through which the Baku petroleum exploitation is now passing.

The inundation phenomena may not appear on the plots, but it is undoubtedly a fact that the present system of boring has already led to the inundation of the strata generally, and therefore considerably more difficult conditions of exploitation have arisen.

As we have already stated, the manipulations connected with the cementing, boring, and sinking of casing columns are the most important items of expenditure in boring a well as compared with all other items. From the boring data at hand it appears that boring a well to a depth of 2,400 ft. (which is the average depth of the wells studied) and of a final diameter of 8 ins. to 12 ins., takes over three years, or longer than the boring under normal conditions of a shaft of a diameter of 5 to 6 metres. The expenditure incurred in boring is approximately as follows :—

| | Roubles. |
|---|---|
| Boring 2,400 ft.... ... ... ... | 47,900 |
| Auxiliary work... ... ... ... | 1,065 |
| Trial baling ... .. ... ... | 2,040 |
| Cementing ... ... ... ... | 6,690 |
| Various losses in connection with cementing ... ... ... ... | 1,770 |
| Columns sunk ... ... . ... | 1,441 |
| Columns extracted ... ... ... | 3,180 |
| Total ... ... ... ... | 64,086 |

The boring contractor has to invest in :—

| | Roubles. |
|---|---|
| A boring bench, with accessories ... | 25,000 |
| Repair shop ... ... ... ... | 3,000 |
| Total ... ... ... ... | 28,000 |

| Yearly expenditure of the contractor :— | |
|---|---|
| Amortisation of the above during six years ... ... ... ... ... | 4,167 |
| Amortisation of instrumentation ... | 1,000 |
| Wages ... ... ... ... ... | 2,304 |
| Salaries of one boring master and two assistants ... ... ... ... | 3,360 |
| Materials ... ... ... ... | 1,000 |
| Upkeep of repair shop... ... ... | 3,000 |
| Total ... ... ... ... | 14,831 |
| 20 per cent. on administration ... | 2,966 |
| Total ... ... ... ... | 17,797 |
| Total income of the boring contractor | 64,100 |
| Total expenditure, $\frac{17,800 \times 1,171}{360}$ ... | 58,000 |
| Net income ... ... ... | 6,100 |

Or, on a yearly basis, the income of the boring contractor per well is equal to 1,870 roubles a year, of which 15 per cent. must be deducted for the reserve fund and 10 per cent. in payment of taxes, leaving as the practical net income 1,402 roubles, which, on the capital of 28,000 roubles, makes 5·1 per cent. of yearly dividend, which, considering the great fluctuations in the industry, can in no way be counted a high one. As a boring contractor, however, has many boring operations in his possession, and as a set of boring instruments can be used for several wells, the real expenditure must be lower. On the other side, boring by contract is usually completed considerably quicker than otherwise, and therefore we are quite justified in saying that the dividend of the contractor is at least equal to 10 to 15 per cent. on the capital. The second important item in the expenditure is the cost of the casing columns sunk into the well, to which must be added at least half the cost of the extracted columns, the value of which for further use are, of course, considerably reduced.

The whole of the expenses connected with boring a well by the dry method is as under :—

| | Roubles. |
|---|---|
| Payments of the contractor ... ... | 64,086 |
| Cost of columns sunk ... ... ... | 39,226 |
| Cost of columns extracted ... ... | 15,631 |
| Fuel ... ... ... ... ... | 20,700 |
| Cement ... ... ... ... ... | 6,366 |
| General expenditure ... ... ... | 10,000 |
| Total expenditure ... ... | 155,979 |

On the basis of the above considerations the Baku dry method of boring appears to be very slow and costly, and causes an extensive inundation of the deposits.

(*To be continued.*)

## BAKU CRUDE AND REFINED PRICES DURING 1913.

THE following table is of great interest inasmuch as it gives the official figures of the prices of crude oil, mazout and kerosene on the Baku market during the past year, the details being given in copecs per pood :—

| Date (new style). | Crude. | Mazout. | Kerosene. |
|---|---|---|---|
| Jan. 6th | 37 | 37½ | — |
| ,, 13th | 37 | 37½ | — |
| ,, 20th | 37 | 37¾ | — |
| ,, 27th | 37⅛ | 37⅝ | — |
| Feb. 3rd | 36¾ | 37 | — |
| ,, 10th | 37¼ | 37 | 50 |
| ,, 17th | 37¼ | 37½ | 45 |
| ,, 24th | 37½ | 37½ | — |
| March 2nd | 37¼ | 37¼ | 45 |
| ,, 9th | 36¼ | 37 | 45 |
| ,, 16th | 37 | 37 | 44 |
| ,, 23rd | 37¼ | 37 | 44 |
| ,, 30th | 37¼ | 37¼ | 45 |
| April 6th | 38 | 37¼ | 45 |
| ,, 13th | 38¾ | 37½ | 45 |
| ,, 20th | 39 | 38¼ | 47 |
| ,, 27th | 38¾ | 38¼ | 47 |
| May 4th | 39 | 38¼ | 47 |
| ,, 11th | 38¾ | 37¾ | 46 |
| ,, 18th | 39 | 38 | 46 |
| ,, 25th | 39¼ | 37¾ | 46 |
| June 1st | 39¼ | 37½ | 46½ |
| ,, 8th | 39¼ | 37½ | 46½ |
| ,, 15th | 39½ | 37¾ | 46 |
| ,, 22nd | 39¾ | 38 | 46½ |
| ,, 29th | 40 | 38 | 47 |
| July 6th | 40¼ | 39 | 47½ |
| ,, 13th | 41½ | 39¼ | 48½ |
| ,, 20th | 43½ | 41½ | 50 |
| ,, 27th | 43¾ | 42 | 51 |
| Aug. 4th | 46 | 44 | 54 |
| ,, 11th | 48½ | 46½ | 60 |
| ,, 18th | 51½ | 49 | 65 |
| ,, 25th | 52 | 50 | 66 |
| Sept. 1st | 51½ | 50 | 68 |
| ,, 8th | 52½ | 51 | 69 |
| ,, 15th | 54½ | 52 | 69 |
| ,, 22nd | 56 | 54 | 70 |
| ,, 29th | 58 | 54½ | 72½ |
| Oct. 6th | 52 | 54 | 71 |
| ,, 13th | 47 | 47 | 69 |
| ,, 20th | 49 | 48 | 68½ |
| ,, 26th | 46 | 45 | 67 |
| Nov. 3rd | 44 | 44½ | 62 |
| ,, 10th | 43¼ | 42 | 59 |
| ,, 17th | 43½ | 42 | 57 |
| ,, 24th | 44¼ | 42 | 57 |
| Dec. 1st | 45¼ | 42½ | 57½ |
| ,, 8th | 41¼ | 41 | 52 |
| ,, 15th | 41¼ | 39¾ | 51 |
| ,, 22nd | 38¾ | 38 | 49 |
| ,, 29th | 37 | 36½ | 46 |

## FUEL OIL IN NITRATE WORKS OF CHILI.

IN writing for the Daily Consular and Trade Reports of the Department of Commerce, the United States Consul at Iquique, Chili, says : A factor of great importance to the nitrate industry, the effect of which will be more apparent shortly as far as the value of imports into Iquique is concerned, has been the successful use of crude petroleum as fuel for the boilers in the oficinas. The use of oil effects a saving of about 40 per cent. and it is gradually being adopted by many oficinas.

Most of the fuel oil imported into the province of Tarapaca is brought from Peru in its natural state, and is delivered at Caleta Buena, a subport of Iquique, for the Agua Santa Nitrate Co. This company was the pioneer importer of oil into Iquique as fuel, the chief engineer insisting on trying it, much against the wishes of his directors, and ordering a consignment of American oil. The latter differs from the Peruvian oil in that the gasolene, naphtha, etc., have all been extracted before it is delivered, and it is so thick that the storage tanks must have a system of pipes through which steam or hot water is passed to heat the oil enough to make it flow. The tanks at Caleta Buena were not so built and the oil formed a solid mass inside and had to be dug out with spades before the tanks could be used again. As a result the importation of fuel oil for this company, which supplies several other oficinas, and now amounts to over 70,000 tons a year, was lost to the United States.

Although the West Coal Oil Fuel Company sells California oil in this district, the storage tanks of its agents in Iquique were not completed until the fall of 1912, and only a small quantity (1,220 tons) figures in the imports in 1912. The Nitrate Railways Company lines were not properly equipped with tank cars for the transportation of oil to the pampas by the end of 1912. They may try the experiment themselves of burning oil in their engines. In any case, large quantities of American oil were expected to be imported into this district during 1913.

THE TEXAS COMPANY,
Transporters, Refiners and Distributers of Petroleum and its Products.
*General Offices:* HOUSTON, TEXAS. *Export Department:* Whitehall Building, NEW YORK.

REFINED OILS AND SPIRIT,
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*London Offices:* BILLITER BUILDINGS, 22, BILLITER STREET, E.C.
Telegrams: "TEXACOIL LONDON." Telephone: LONDON WALL 6257.

# MISCELLANEA.

## MANUAL FOR THE INTERNATIONAL PETROLEUM INDUSTRY, 1914.

THE new edition of this reference book, published by the Finanz-Verlag-Ges., Ltd., Berlin C.II. Neue. Frederichstr. 47, price 12 mks., has just been published. It contains over 600 pages of printed matter, and gives information on all the petroleum enterprises of Germany, Austria, Hungary, Russia, England, Roumania, United States, and Mexico. It also contains the names and addresses of the directors and other members of administrations of each company, the dates of the formation, complete information as regards the objects of the enterprises, their capital, dividends paid during the last years, date of last general meeting, complete balance-sheets, etc.

As regards information concerning the whole of the petroleum industry all over the world, this book has no equal. Especially noteworthy is the statistical data of the world's production of petroleum. We can recommend the publication to anyone interested in petroleum as a reliable manual, full of information of constant use to anyone who studies any subject of petroleum.

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## OIL POSSIBILITIES IN BARBADOS.

IN the annual colonial report on the trade of Barbados just issued, the following statement is made with regard to the petroleum possibilities on the island: Following on the passage of the Act to provide for a geological survey of the island, the services of Mr. E. H. Cunningham Craig, a geologist of high repute and standing in the oil world, were engaged by the Government, and this gentleman began his survey in 1912. Mr. Craig's conclusion is "that a prosperous if not very large local industry in oil-producing and refining can be established in this colony." If this prediction be realised a new and important industry—which cannot fail to increase the material prosperity of the colony—will be added to those now existing.

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## SURAKHANY PETROLEUM PRODUCTION DURING NOVEMBER.

THE production of petroleum on the Surakhany oilfields during November amounted to 3,731,816 poods of black oil, 96,006 poods of gas and 50,080 poods of white oil. The above production includes 702,280 poods of spouted oil. The production of the firms was as under :—

| | Poods. |
|---|---|
| Caspian and Black Sea Society | 935,056 |
| Nobel Bros. ... ... ... | 898,818 |
| Benkendorff Company ... | 887,678 |
| Baku Petroleum Company ... | 222,000 |
| Vanezoff ... ... ... | 210,000 |
| Mirzoeff Bros. ... ... ... | 196,500 |
| Lukke & Gaber ... ... | 143,000 |
| Rilski Trustees ... ... | 120,000 |
| Russia Nafta Society ... ... | 63,900 |
| Maikoff & Sons ... ... | 51,500 |
| Assodullaeff ... ... ... | 3,400 |

## THE PETROLEUM COMPANY OF ILDOKANI, LTD.

### Public Issue.

DURING the present week the Petroleum Company of Ildokani, Ltd., with a share capital of £300,000, of which 75,000 £1 shares were offered, has gone to public issue, the whole amount having been previously guaranteed. The company has acquired approximately 810 acres of proved oil-bearing land in the Ildokani field of Russia. This field is in the Kabetian province of the South Caucasian region. The vendors of the company are the Ildokani Oil Syndicate, which has recently carried out exploratory boring work upon the property in order to prove the existence of oil on the properties in commercial value. Two wells were sunk at points considerably distant from each other, each encountering flows of oil and gas at shallow depths. Well No. 1 has entered the first oil stratum, and has now been capped pending the lowering of the safety column and the provision of storage, while well No. 2, which is 994 ft. deep, is expected to enter the oil-bearing strata at 1,400 ft. No royalties are to be paid on the production of the crude oil. The company's board, whose chairman is Mr. A. R. Stephenson, includes the Right Hon. Viscount Ingestre, Mr. W. J. Cambridge, Mr. Otto Schiff, and Mr. O. Tchighianoff, the managing director, late of Messrs. A. Mantascheff & Co. of Baku.

◆

## FORTHCOMING LARGE PURCHASE OF OIL FUEL BY THE U.S.A. GOVERNMENT.

WITHIN the next few weeks the REVIEW understands that the United States Naval Department will ask for competitive bids for 1,000,000 barrels of liquid fuel. Of this amount we further learn that about 200,000 barrels will be needed on the Pacific Coast, and the remainder has to be delivered at Government supply stations in other parts of the country.

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**Oil Well Supply Company's New Representative.**—Our readers will be interested to hear that Mr. Astley Carter, who has had nearly a quarter of a century's experience as a mechanical engineer, has recently joined the staff of the Oil Well Supply Company as representative in the City of London. We wish Mr. Carter every success in his new sphere of activity.

◆

## OCTOBER IMPORTS OF PETROLEUM PRODUCTS INTO FRANCE.

THE imports of crude oil and products into France during October were as under :—

| From | Crude Oil. Tons. | Kerosene. Tons. | Benzine. Tons. | Residuals. Tons. |
|---|---|---|---|---|
| Austria... ... | — | 4,776 | 1,350 | — |
| Russia ... ... | — | — | 52 | 8,140 |
| Roumania ... | 3,216 | 272 | 10,650 | — |
| United States ... | 13,024 | 27,720 | 8,100 | 8,440 |
| Other countries. | — | 1,648 | 68 | 5,000 |
| Totals ... | 16,240 | 34,416 | 20,220 | 21,580 |

# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Lobitos.**—Production for December, 7,099½ tons.

**Oilfields of Mexico, Ltd.**—Production last week, 2,550 barrels (364 tons).

**Traian Roumanian Oil Company, Ltd.**—Production, week ended 3rd instant, 328 tons.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production, week ended 3rd instant, 246 tons.

**British Burma Petroleum Company, Ltd.** — Production by this company and the Rangoon Oil Company, December, 71,326 barrels.

**Maikop Pipeline and Transport Company, Ltd.**—Received for pumping, week ended 3rd instant: Ekaterinodar line, 52,873 poods (853 tons): Krimskaya line, 6,400 poods (103 tons).

**Maikop Premier.**—Progress report, by telegram, dated Apsheronskaya, 5th instant: New well No. 5, 891 ft., increase 31 ft.; 8-in. water shut-off secure. New well No. 6, 410 ft., increase 93 ft.

**Maikop Midland Oilfields, Ltd.** — Well No. 3, cutting out 8-in. column. Well No. 4, bailing slowly owing to boiler repairs. Well No. 5, depth 1,860 ft. Well No. 6, depth 1,050 ft. Well No. 7, depth 850 ft.

**Levanovskoe Petroleum Company, Ltd.**—Production, week ended 3rd instant, 2,300 poods (37 tons). Well No. 1, bailing slowly owing to boiler repairs. Well No. 3, depth 1,710 ft. Well No. 4, depth 1,350 ft.

**Anglo-Egyptian Oilfields, Ltd.** — Cable: Well No. 14 produced yesterday 86 tons, to-day 76 tons. Specific gravity, ·820. Will test for a few days, but we think it probable not yet thoroughly drilled in oil quite free water.

**Oklahoma Oil.**—Sales of oil, after deducting royalties, by the Canadian Oil and Gas Company for December, 1913, realised $12,621, the corresponding figures for 1912 being $13,910. Total sales for 1913 amounted to $171,231, against $140,579.

**West Ural Petroleum Company, Ltd.**—Cable from manager states that drilling in No. 1 well, which commenced on December 16th, is down to a depth of 392 ft., and that drilling in No. 2 well, which commenced on December 19th, is down to a depth of 356 ft.

**Russian Petroleum Company, Ltd.** — Well on adjoining property spouting at rate of 500,000 poods of clear oil per day from depth of 420 sags. Office note: The Russian Petroleum Company has five wells in process of deepening to this source, of which one is at a depth of 400 sags., two at 380 sags., one at 371 sags., and one at 335 sags.

**Tampico Oil Company, Ltd.**—Manager cables: Borehole No. 2 north: depth 1,813 ft., increase since last report 115 ft.; formation, mixed limestone and hard grey shale. No deliveries of oil last month. Revolution restricted movements of barges. Production for last month, 3,000 barrels; stock, 19,000 barrels; amount of oil piped for our neighbouring company last month, 5,800 barrels.

**Tampico-Panuco Oilfields, Ltd.** (and its subsidiary, Chijoles Oil).—Tamboyoche: Well No. 1, withdrawing casing to 1,900-ft. level; well No. 2, building rig. Arena: Well No. 1, depth 2,030 ft. Chijoles: Wells Nos. 1, 2, and 3, no change; well No. 4, depth 1,890 ft.; well No. 5, building rig. Production during last week, 3,010 barrels. Properties and neighbourhood are entirely free from disturbance.

**Kern River Oilfields of California, Ltd.**—Production, December, 80,799 barrels, including 5,450 barrels from the properties of the St. Helen's Petroleum Company, whose Management Committee reports by cable as follows:—Midway-King lease: Well No. 1 B, depth 1,770 ft., increase 410 ft.; well No. 3, depth 2,425 ft., increase 50 ft., showing oil. Midway-McLeod lease: Well No. 1, depth 3,500 ft., increase 15 ft., showing oil. Fullerton-Anaheim lease: Well No. 2, depth 2,650 ft., increase 75 ft.; well No. 3, depth 2,750 ft., increase 125 ft., showing oil. Santa Maria: Well No. 1, depth 3,635 ft., increase 85 ft., drilling going well.

**Roumanian Consolidated Petroleum Company, Ltd.**—Production, week ended January 3rd, 1,074 tons; December, 4,170 tons; half-year, 34,907 tons. Drilled during half-year, 9,672 ft. Office note: Moreni wells shut down 21 hours during past week owing to stoppage of electric current. Supply company undertake that there shall be no further interruptions. Cablegram from Ploeshti, dated January 5th: "Moreni, well No. 5, protective column inserted, cementing this week. Moreni, well No. 39 commenced flowing gently from first oil source (620 ft.) at rate of 15 tons a day. Chiciura, well No. 3, still cleaning sand; produced 15 tons of oil to-day."

**Tulsa Oil Company, Ltd.**—Manager cables that well No. 1 on the new Bald Hill lease has struck oil, the well coming in at 50 barrels a day. This is the first of the five new properties to find oil. The results of the other four tests are expected during January. The secretary writes as follows, under date January 6th: The first test well on the new 40-acre oil lease at Bald Hill was completed yesterday, with the result that a good well, estimated to come in at 50 barrels a day, was struck. This well is of considerable importance, as it not only gives the company an entirely new and proved virgin area to work on, but adds very materially to the assets of the Tulsa Oil Company. The December output was 5,600 barrels, being an increase of 168 barrels over November.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | $\frac{17}{32}-\frac{19}{32}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1-1\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 92-97 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 4/9-5/3 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5 6-6/6 |
| European Oilfields ... ... | 319,181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 27/-28/xd |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 32/6-33/0 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}-\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}-\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 20/6-21/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/0-3/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}-1\frac{3}{8}$xd |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $4\frac{27}{32}-4\frac{29}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{1}{8}-10\frac{3}{8}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 20/9-21/3 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 697 | 700 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... .. | 5,000 | 18,700 | 18,800 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 990 |
| Russian Naphtha Society ... .. | 100 | 251 | 253 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 36/3 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 77/6 |
| " Pref. ... ... ... | 250,000 | £1 | 26/6 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 6/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 36/3 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 35/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | $25/4\frac{1}{2}$ |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 6/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | $5\frac{11}{16}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 9/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 73/0 |
| " "B" Deb. ... | 160,000 | £100 | £153 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | 1/3-1/9 |
| Anglo-Persian Preference (£1)... ... ... ... | $\frac{15}{16}-1\frac{1}{16}$ |
| Anglo-Terek (£1)... ... ... ... ... ... | $\frac{1}{16}-\frac{3}{16}$ |
| Baku (10/- Shares) ... ... ... ... ... | 4/9-5/3 |
| Batavia (£1) .. .. ... ... ... ... | 19/6-20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{3}{16}-\frac{5}{16}$ |
| " Preference (£1) ... ... ... ... | $\frac{1}{4}-\frac{3}{8}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{5}{8}-\frac{11}{16}$ |
| British Burmah Petroleum (£1) ... ... ... | 4/9-5/3 |
| British Maikop (2/-) ... .. ... ... ... | 0/9-1/- |
| California (£1) ... ... ... ... ... ... | $5\frac{3}{4}-6\frac{1}{4}$ |
| California Petroleum Preference ($100) ... ... | 47-52x |
| Cheleken (£1) .... ... ... ... ... ... | $1\frac{23}{32}-\frac{25}{32}$ |
| Chijoles (£1) ... ... ... ... ... ... | $1-\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{7}{16}-\frac{9}{16}$ |
| Copan Oilfields ... ... ... ... ... ... | 5/0-5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... ... | 2/0-2/6 |
| Eagle Transport Preference (£5) ... ... ... | $4\frac{15}{16}-5\frac{1}{16}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | $2\ \frac{1}{2}$ |
| Emba Caspian (£1) ... .. ... ... ... | $\frac{9}{16}-\frac{5}{8}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 5/9-6/3 |
| Hungarian National (£1) ... ... ... .. | $\frac{1}{2}-\frac{3}{4}$ |
| International Russian (5/-) ... ... ... ... | 0/6-0/9 |
| Kansas-Oklahoma (£1) ... ... ... ... ... | $\frac{5}{8}-\frac{3}{4}$x |
| Kazan Oilfields (£1) ... ... ... ... ... | $1\frac{1}{8}-\frac{3}{16}$ |
| Kern River (10/-)... ... ... ... ... ... | 5/9-6/3 |
| Lagunitos (£1) ... ... ... ... ... ... | $\frac{1}{8}-\frac{3}{16}$ |
| London Oil Syndicate (£1) ... ... ... ... | $1-\frac{1}{4}$ |
| Maikop Premier (£1) ... .. ... ... ... | 10/6-11/6 |

| Company. | Friday's Prices. |
|---|---|
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/6-4/6 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0-2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | $1\frac{7}{8}-\frac{15}{16}$ |
| Mexican Eagle Preferred ($10)... ... ... ... | $1\frac{25}{32}-\frac{27}{32}$ x |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 85-95 |
| New Caucasian (10/-) ... ... ... ... .. | 1/3-1/9pm |
| New Oil Properties (£1)... ... ... . ... | $\frac{7}{8}-1$ |
| Oil Development Trust (2/-) .. ... . ... | 1/6-1/9 |
| Oil Shale Development (5/-) ... ... ... ... | $3/4\frac{1}{2}-3/7\frac{1}{2}$ |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{16}-\frac{3}{16}$ |
| " " Preference ... ... ... ... | $\frac{1}{2}-\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... . . ... . ... | $\frac{7}{8}-1$ |
| Pacific Petroleum (£1) .. . . ... ... ... | 22/0-23/0 |
| Premier Oil and Pipe Line (£1) ... ... ... | 5/9-6/3 |
| Ratoczyn (£1) ... ... ... ... ... ... | $2\frac{7}{16}-\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{19}{32}-\frac{21}{32}$ |
| Russian General Oil Corporation (£1) ... ... | $1\frac{27}{32}-\frac{29}{32}$ |
| Santa Maria of California Ordinary (£1) ... ... | 17/0-18/0 |
| " " Preferred (£1) ... ... | $1\frac{5}{16}-\frac{3}{8}$ |
| South Caucasian (£1) ... .. ... ... ... | $1\frac{1}{2}-2$ |
| Suez (£1) ... ... ... ... ... . ... | 4/0-5/0 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | 15/0-15/6 |
| Tampico-Panuco (5/-) .. ... ... ... ... | 7/9-8/3 x |
| Traian (Roumanian) (£1) ... ... .. ... | $\frac{7}{8}-1$ |
| Trinidad (£1) ... ... ... ... .. ... | $\frac{3}{8}-\frac{1}{2}$ |
| Ural Caspian (£1) ... ... ... ... ... | $2\frac{1}{4}-\frac{5}{16}$ x |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | $1-\frac{1}{8}$ pm |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}-\frac{1}{2}$ |

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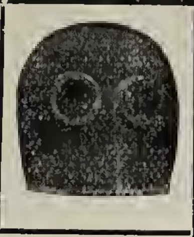
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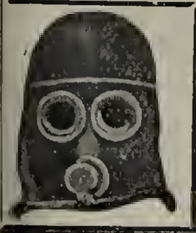
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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, JANUARY 10TH, 1914.

## THE TREND OF EVENTS.

To all who have the well-being of the petroleum industry at heart it is ever of great interest to study what we may aptly call the trend of events. Though, for the time being, we must admit there is not that amount of speculation among investors in oil securities one might expect, nor are the quotations of the old-established petroleum companies listed on 'Change at that level which circumstances warrant, nevertheless, the trend of events is distinctly encouraging, suggesting as it does a period of general expansion for the petroleum industry in the near future.

That the growing demand in regard to the consumption of petroleum products has brought about a condition when consumption and production are going hand in hand, is evident to those who make a point of closely studying the conditions prevailing in the various producing regions, and that this will continue to increase as time goes on is also a matter upon which there cannot be two opinions. It is therefore certain that the production of crude oil must of necessity steadily increase in order to satisfy the world's multifarious requirements, and thus comes the opportunity for the remunerative development of new producing regions which to-day may not have entered upon their commercial career.

The present is a period when abnormal conditions prevail in practically all the old-established fields of the world, and this to some extent accounts for the unprecedentedly high level of crude oil quotations. These conditions themselves are totally apart from the admitted difficulties of ocean transport, and are accounted for by reason of the consistent increase both in the production of crude oil and in the steady development of the markets of consumption throughout the world. The present conditions in the fields bind themselves into a somewhat complex problem, yet one which is not difficult of appreciation when carefully studied.

Let us first take the case of America. As is known, the American fields are pouring forth quantities of oil far greater than have ever been known hitherto. We will not here enter into the decline of the high-grade producing regions, but simply mention that to-day the decline in the yield in the Pennsylvanian fields is felt upon the general market in a far less degree than hitherto, owing to other territories having been opened up which are providing the market with all its requirements for refining purposes. The search for these new territories, however, has led to a decided increase in the production of low-grade oils, large quantities of which cannot at the moment find a market, though they are eminently suitable for fuel purposes. As time goes on, we do not in the slightest doubt that additional channels for consumption will be found; in fact, the opening of the Panama Canal will provide an excellent opportunity for these liquid fuels reaching Atlantic ports; but for the time being, there is a surplus in the production of these heavy gravity oils, and huge stocks are held above ground especially in the Californian fields, the position having for the past few months been rendered all the more difficult owing to the refusal of the Standard to purchase such oils. The position, however, is gradually assuming a better aspect, and during the present year, in all likelihood, we shall see a steady return to normal conditions in the United States fields. In Mexico, too, the same abnormal condition has prevailed, for coupled with the great unrest in the Republic, while the production of crude oil is ever increasing, it has far exceeded the facilities of transport. Still, the outlook is improving, and with the opening of the new markets for consumption in Central and Southern America, combined with the cultivation of an enormous European trade, matters in Mexico are righting themselves in a most gratifying degree.

In the Russian fields the constant decline in the old fields has brought about a condition of things when consumption has overtaken production—a position which has become so serious that at the present time Russia is importing Mexican oils for its liquid fuel requirements.

So far as the Roumanian fields are concerned it is the steady expansion in the importance of the industry which alone has created not a few difficulties. Roumania has progressed to such a degree in the matter of organising a great international petroleum trade that all the present facilities for meeting these requirements have failed, and until the new pipelines to the port of Constantza are in working order, the position cannot be materially affected. But this will now only be a question of months, and then we shall see an impetus given to the greater development of Roumania's prolific fields, and to the strengthening of its export trade, which, in its international importance, cannot be over-estimated.

Abnormal conditions, too, prevail in the Galician fields, where the decline in production on the one hand, and the increased demand for refined products on the other, have placed both producers and refiners in the throes of a dilemma. Galicia has tried to make good its deficiencies in crude oil production by securing supplies from Roumania for its refinery needs, but Roumania can turn its crude oil to better account by refining it at home. To our mind, it seems that Galicia's only hope lies in the active development of the extensive territories it possesses, many of which have already been proved to be petroliferous, yet have not commanded the active attention of producers.

The Far Eastern fields may be said to be the one exception to the general position in the world's great fields, for there, thanks to the development and the export trade being governed practically by one amalgamation of capital, every possible opportunity has been grasped for extension, and by the adoption of a policy of foresight the progress of the past has pointed to the greater progress of the future, and, as a consequence, a policy devoid of any shortcomings has been carried out, the effect of which will be the clearer seen as time goes on.

But to return to our subject of the trend of events in regard to the petroleum industry. From what we have already said, it must be clear to our readers that there are to-day remarkable opportunities for the searcher after oil, inasmuch as in order to keep pace with the increasing demand for petroleum products the world's output of crude oil must still substantially increase. That this is a comparatively easy matter, recent events have proved, for there are numerous virgin areas near to all the great centres of production. When these new areas are commercially developed—and there is no reason why greater activity should not be shown in this respect—then will many of the present abnormal aspects of the industry be removed, and a decidedly healthy tone permeate the industry all round, while those who have assisted in this expansion will reap an adequate reward.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JANUARY 5th, 1913.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. | Since Jan. 1. | From Jan. 1. |
| **Belgium** .. | — | — | 2,400 | 2,400 | — | — | — | — | — | — | — | — | — | — | 2,400 | 2,400 |
| **Canada** .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Dutch Indies** | — | — | — | — | — | — | — | — | 617,000 | 617,000 | — | — | — | — | 617,000 | 617,000 |
| **Germany** .. | — | — | 2,890 | 2,890 | — | — | — | — | — | — | — | — | — | — | 2,890 | 2.890 |
| **Holland** .. | — | — | — | — | — | — | 55,000 | 55,000 | 25,000 | 25,000 | — | — | — | — | 80,000 | 80,000 |
| **Mexico** .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| **Roumania** .. | — | — | — | — | — | — | — | — | 642,140 | 642.140 | 1,207,910 | 1,207,910 | — | — | 1,850,050 | 1,850,050 |
| **Russia** .. | — | — | 740 | 740 | — | — | — | — | — | — | — | — | — | — | 740 | 740 |
| **U.S.A.** .. | 372,880 | 372,880 | 382,680 | 382,680 | — | — | 2,597,920 | 2,597,920 | — | — | — | — | — | — | 3,353,480 | 3,353,480 |
| **Other Countries** | — | — | 1,200 | 1,200 | — | — | — | — | — | — | — | — | — | — | 1,200 | 1.200 |
| | 372,880 | 372,880 | 389,910 | 389,910 | — | — | 2,652,920 | 2,652,920 | 1,284,140 | 1,284,140 | 1,207,910 | 1,207,910 | — | — | 5,907,760 | 5,907.760 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Texas Shipments.**—The total water shipments of Texas and Louisiana crude and refined oil from Gulf Coastal ports during November amounted to 2,400,000 barrels.

**California's Production.**—It is estimated that the total crude oil output of the Californian fields during the past year will amount to about 97,000,000 barrels, or about 7,000,000 barrels more than in the preceding year.

**Large Tank Order Placed.**—Confirmation is now forthcoming of the large order for storage tanks by the Shell interests in California. The order is for twenty storage tanks of steel, each with a capacity of 55,000 barrels.

**The Do Soto District.**—Developments in this new district of the Louisiana field are progressing rapidly, and nineteen wells are now being drilled. The activity has been augmented by the bringing in of the Pasadena Petroleum Company's well, which is now producing 4.000 barrels daily.

**The Edgerly Pool.**—The producers in the Gulf Coastal fields are now concentrating their attention upon the development of the Edgerly Pool, in which a good producer has been recently brought in. The well is reported to be producing 2,500 barrels of high-grade oil per day. With one exception this well is the deepest yet completed in the entire Gulf Coast region.

**Petroleum Exhibit at San Francisco.**—Dr. Irving C. Allen, of the United States Bureau of Mines, is visiting California in the interests of the petroleum exhibit which is to be made at the coming Exposition in San Francisco. It is stated that the exhibit will take the form of a miniature oilfield, with oil wells in the process of drilling, miniature refineries in working order, &c.

**The Standard and Heavy Oil.**—Californian oil producers are elated on account of the decision of the Standard Oil Company to again purchase heavy oil at a price of 35 cents per barrel. In making new contracts the Standard is insisting that they shall be for two years, but many producers, thinking there will be an upward tendency in regard to heavy oil in a few months, are holding from committing themselves. The Standard's decision, however, points to an improved outlook in the heavy oil market.

## RUSSIAN.

**Prices of Kerosene on the Volga.**—Messrs. Nobel Bros. and the Mazout Company have reduced the prices of kerosene in the Volga ports by 19 copecs per pood.

**Tariff Committee.**—The tariff committee decided at its last meeting to address the Ministry with a demand of elaborating a system of various indications of the nature of petroleum products, in order to bring more system into the taxation of these.

**Emba=Ural Petroleum Company.**—Under this name a new company for the purpose of petroleum explorations in the Ural petroleum district has been formed. The company will have a capital of 3,000,000 roubles, divided into 30,000 shares of 100 roubles each, and the administration will be at St. Petersburg.

**Emba=Dossor Company.**—A new petroleum company under this name has been formed for the purpose of petroleum exploration and trading on the Ural, with a capital of 1,500,000 roubles, divided into 15,000 shares of 100 roubles each. The administration of the new company will be at St. Petersburg.

**International Lighting and Heating Exhibition.**—The Second International Lighting and Heating, etc., Exhibition has been opened at St. Petersburg. This exhibition is organised principally for the purpose of acquainting the public with the progress made in lighting and heating and the best utilisation of light and heat for domestic, as well as for industrial purposes.

**Exports of Petroleum Products to Volga Ports.**—The total exports of petroleum products to Volga ports during the last navigation amounted to 51,853,468 poods of kerosene and lubricating oils, and 215,758,395 poods of residuals and crude oil. The exports would have been considerably larger but for the strikes of workmen at Baku and Grosny. The deficiency in the transport is estimated at least at about 25,000,000 poods.

**Tank-Waggons at Nijni=Novgorod.**—At Nijni-Novgorod there prevails great activity in the construction of tank-waggons. A tank-waggon of a capacity of 840 poods of liquid fuel costs 1,945 roubles. They are now commencing to build tank-waggons of a capacity of 1,000 poods, the price of which will exceed 3,000 roubles each, while the old waggons are sold at a price of 1,300 to 2,400 roubles. The price of renting a waggon is 175 to 180 roubles per year.

**New Plots for Petroleum Exploitation.**—Out of the 35 new plots on the Apsheron Peninsula and adjoining islands, 27 have been allotted ; altogether there were 2,193 demands ; on one plot there were 563 demands. The persons who have been allotted the plots have, according to the law, to explore same during the next three years, and out of the 37½ dessiatines choose 5 dessiatines for the purpose of exploitation, while the remaining 32½ dessiatines will revert to the State and undergo a new leasing competition.

**Committee of Petroleum Consumers in Moscow.**—The Committee of petroleum consumers in Moscow has been discussing the question of liquid fuel, and it has unanimously decided that the extraordinary rise in prices of fuel has placed the Russian industry in a critical position, and that it is necessary to elaborate measures in order to ameliorate this state of affairs. The committee is of the opinion that as a temporary measure the import of petroleum from abroad, free of duty, should be prolonged, and as a permanent measure the committee recommends a speedy distribution of petroliferous lands for exploitation.

## ROUMANIAN.

**Bordeni=Doftanetz.**—Well No. 28 of Anglo-Romana continues to yield 20 to 30 tons a day. Well No. 17 of the same company has struck a new stratum of an eruptive nature.

**Recea=Parsani.**—The Parsani States Company has reached a petroliferous strata. The production is not yet established, as they have introduced a protective column, but the prospects are of the most favourable.

**The Beciu Oilfields, Ltd.**—This company has acquired 83 acres of land in the Valea Cioma at a cost of 212,500 francs. Well No. 1 of this company has been deepened and is now producing oil. Two other wells have been bored to respective depths of 1,355 ft. and 1,167 ft.

**Runcu.**—Well No. 232 Steaua-Romana continues to produec 10 tons a day. Well No. 601 Orion produces 25 tons a day by small eruptions, but the production will be considerably increased as soon as the well is cleaned from sand. Eight new wells are going to be started in this district.

**Filipeshti.**—Wells Nos. 2, 3, and 5 of the Astra-Romana have for the present stopped working, and well No. 6 has entered into production and yields 10 tons a day. Well No. 8 has attained a depth of 1,190 metres. In the same district well No. 4 of the Steaua-Romana has reached petroleum at a depth of 1,026 metres.

**Jupiter Petroleum Company.**—Under this name a petroleum company has been formed at Zurich for the purpose of acquiring petroliferous concessions belonging to Mr. M. G. Wachtel in Roumania, and consisting of seven wells in Bushtenari and fields in various localities in the same district. The company has already energetically commenced boring two new wells and deepening the old ones.

**Labour Petroleum Company.**—Under this name a petroleum company has been formed at Paris and registered in Roumania for the purpose of petroleum exploitations in Roumania. The capital of the company is 500,000 francs, in 1,000 shares of 500 francs each. This company will immediately begin boring a well at Baicoi, on a plot very favourably situated at Ferbatori, where, rich petroleum yield has been proved by an eruptive well of the Romana-Americana.

**Oltenia.**—The Romana-Americana has now taken over the concession of the Oltenia at Varfuri, in the district of Dambovitza, and has already started deepening the well No. 2 of the Oltenia to a depth of 800 metres. This well is situated in a pontic formation, and the prospects for good results are most favourable. In case of success the Romana-Americana will repay the Oltenia all the money spent by the latter, and will also pay a royalty of 8 per cent. on the new production. The Romana-Americana has also large areas in the same district, which it has acquired from the Sperantza Company.

# THE MAIKOP VALLEY OIL COMPANY, LTD.

## ACTIVE DEVELOPMENT POLICY TO BE ADOPTED.

On Thursday the third ordinary general meeting of the Maikop Valley Oil Company, Ltd., was held at Winchester House, Old Broad Street, E.C., Colonel R. H. Rawson, M.P. (chairman of the company), presiding.

The Secretary (Mr. R. Antill) having read the notice convening the meeting and the report of the auditors,

The Chairman, in moving the adoption of the report and accounts, said: The report of the directors sets out the position of the company so very clearly that it is not necessary for me to amplify to any extent the information given therein. I should, however, like to emphasise one important point, namely, that, while we as a company are spending very little money at the present time, we have been fortunate enough to make arrangements by which other concerns are incurring considerable expenditure in proving the most promising portion of our properties. The extensive exploration work which is being carried out as a result of these agreements would have cost us a very large sum if we had undertaken it ourselves. I will briefly indicate what this work is, and how it affects us. The Maikop Deep Drilling Company, Ltd., has taken over our plot 321, in the Neftianaya district, and has drilled a well thereon to a depth of nearly 1,500 ft. Adjoining this plot and near to it we have a large property, the value of which will be determined by the results from this well. The Maikop Deep Drilling Company, however, is concentrating its attention for the moment on repairing the well on plot 108 in the Khadiji district, where, as you know, oil was struck about a year ago. This discovery considerably enhanced the potential value of our plot 120, immediately adjoining. As there was nothing to show in which direction from 108 the oil strata actually extend, the drilling of a well on 120 was somewhat in the nature of a speculation, which, considering our limited financial resources, the board of this company felt it was not justified in undertaking. As the company, however, owns a further plot, 132, immediately adjoining, it was thought it would be very satisfactory if arrangements could be made for the drilling of a co-operative well on plot 120, in which this company, with other companies of the Anglo-Maikop group, could participate. This arrangement has already been effected, and the well has now reached a depth of 1,400 ft. We shall receive a royalty of 4 copecs per pood on any oil produced, and, as we are one of the five companies interested, we shall participate to the extent of one-fifth of the profits. It is expected that the oil source will be struck at a depth of from 2,300 ft. to 2,500 ft. Under the arrangement mentioned at the last general meeting with regard to the work on plot 134, this drilling should prove the value of several of our plots situated in the immediate vicinity. The depth of the well on 134 is now 1,932 ft. That is the position at the present time.

As the accounts do not show any serious variation from the figures placed before you at the last meeting, my comments on the balance sheet will be very brief. The additional capital expenditure on the property, amounting to £2,464. 1s. 6d., consists principally of work done on plot 460 and the work on the company's various otvods necessary to comply with the Government requirements. The increase of £3,877 in investments is represented by the 3,000 fully paid shares of the Maikop Deep Drilling Company, Ltd., accruing to us as purchase consideration for plot 321, and by the sum of £877—the final call on our original holding of shares in that company. As stated in the report, the Deep Drilling Company has exercised its option over our plot 148, and for that we shall receive allotment of 3,000 fully paid shares of that company as soon as the transfer in Russia has been completed. Our general expenditure in Russia was very small, while as regards London, during the period covered by the accounts, the directors have drawn only half fees, and since that date no fees at all. I do not know that there is anything in the balance sheet which calls for further comment on my part; but I shall be glad to answer any questions which shareholders may like to ask. I think it is obvious to us all that the amount of capital which we have at our disposal is not sufficient to enable us to carry out by ourselves an energetic drilling programme. The directors, however, feel that the company should not be allowed to remain in a semi-dormant condition awaiting the fruition of the various operations which I have explained to you, and they have accordingly, for some time, been considering various schemes by which the company would be placed in a position to carry on active operations on its own account. I am not able to-day to make a definite statement regarding the arrangements we have in view. I may say, however, that these negotiations are fairly well advanced, and you may rest assured that the directors will take the first opportunity of calling the shareholders together as soon as a proposal can be placed before them. I now beg to move: "That the balance sheet as at July 13th, 1913, and the report and accounts of the directors be adopted," and will ask Mr. Tweedy to second the resolution.

Mr. George Tweedy (managing director) seconded the motion.

In reply to Mr. Mayhew, the Chairman said the figure of £1,256 mentioned in the balance sheet represented half the directors' and managing director's remuneration. The other half of their fees was outstanding. Since July last, however, the directors had drawn no fees at all.

Mr. Truman said it appeared from the balance sheet that the public had subscribed £295,000 to this company, and he supposed the greater part of it went as purchase consideration. The drift of the chairman's remarks with regard to the negotiations which were going on appeared to be that the company was about to be amalgamated with other companies in a similar position. In the balance sheet there was an item of formation expenses amounting to nearly £30,000; he did not see how that could be taken as an asset.

Mr. Tweedy said that he, personally, had no interest whatever in the promotion of this company. He had stuck to it, not because of anything he had gained out of it, but for the purpose of endeavouring to make it a success.

The Chairman pointed out that the amount of cash received when the company was started was only £100,000, and not £300,000, the vendors having taken practically the whole of their purchase consideration in ordinary shares. He did not think any of these had been sold by the vendors; in fact, they were not yet settled on the Stock Exchange. Of the formation expenses £20,000 for underwriting commission was satisfied by the allotment of fully paid ordinary shares. With regard to Mr. Truman's remarks as to what was going to happen, it would be quite time to make such remarks when it was known what was actually going to be proposed. At present he (the chairman) was not in a position to say anything further on the subject; but whatever they proposed could only be carried with the consent of the shareholders, who would have the whole matter placed before them. He would assure them that the board were only too anxious to do all they could to make this a paying concern, and he believed they would.

Mr. Henning inquired whether Mr. Tweedy could give the meeting any later information as to the Deep Drilling. He understood the new casing was on its way to the field, and that it was shortly to be installed. He added that Mr. Tweedy was the man who had managed whatever companies on the Maikop field had achieved success.

Mr. Tweedy, in reply, said that, although he was not a director of the Deep Drilling Company, he understood that the heavier 5-in. casing originally ordered was only 300 ft. It was found that if an attempt were made to lower the heavier on the lighter casing the threads of the latter would strip with the weight and the heavy part would drop to the bottom. Therefore they subsequently ordered a complete string of the heavier casing and were now awaiting its arrival.

The motion was carried unanimously.

# The Oil and Gas Prospects of the North-West Provinces of Canada.

By Mr. WYATT MALCOLM.

THE plains of Western Canada are underlain by a great body of sediments, nearly horizontal in attitude, and resting on a pre-Cambrian base. The eastern contact between the pre-Cambrian rocks and the latter formations runs in a generally north-west direction from Lake Manitoba past Athabaska, Great Slave, and Great Bear lakes. In the eastern part of the plains a great unconformity exists between the Palæozoic systems, consisting of limestones, dolomites, and shales, and the Cretaceous system, consisting of shales and sandstones, so that we find the Dakota sandstones of the Cretaceous system resting directly upon limestones of the Devonian system. The Palæozoic strata are exposed by faulting in the Rocky mountains and much of the later sediments has been eroded, only traces of the lower members being left. In the west, deposition during Carboniferous, Triassic, and Jurassic times has to a great extent bridged over the unconformity seen in the east, and the geological column includes formations found in nearly all the great systems from the Cambrian to the Recent. In Western Alberta, and in some parts of South Saskatchewan, the Cretaceous sediments are overlain by Tertiary deposits. Overlying all is a mantle of unconsolidated Pleistocene and Recent deposits.

Little has been done yet to test the gas and oil possibilities of the district. A few wells have been sunk, and in a number of these gas in commercial quantities has been struck. Prospecting for oil has been less successful.

Prospecting for oil has been carried on in two different areas in the Pincher Creek district, South-western Alberta, one on the south branch of the south fork of Oldman river, and the other on Oil creek, which flows into Waterton lake. This has apparently resulted in no great measure of success. In Northern Alberta the Dakota sandstone, where exposed along the Athabaska and its tributaries, is impregnated with a bituminous substance believed to be a petroleum product, and it is thought that liquid petroleum exists in this porous rock at some distance from the outcrop. To test the validity of this belief, wells were drilled during the nineties by the Dominion Government at Victoria, on the Saskatchewan, at Athabaska Landing, and at the mouth of Pelican river. In the first two wells the Dakota sandstone was not reached, while in the last it was reached at a depth of 750 ft, penetrated about 87 ft, and found to carry maltha, or heavy, tarry petroleum.

Prospecting for gas has been much more encouraging. The boring at the mouth of Pelican river, although disappointing so far as oil is concerned, proved the presence of a great reservoir of gas in the Dakota sandstones, and heavy flows were struck at 820 and 837 feet. In Southern Alberta, also, gas is found in paying quantities. A good field exists at Medicine Hat, and flows have been obtained at several different points west of that city. At Bow island a flow of several million feet is obtained.

Thus, while the presence of oil in commercial quantities remains to be proved, boring operations have demonstrated beyond a doubt the existence of large reservoirs of natural gas, and it seems probable that further exploratory work throughout the wide area underlain by the Cretaceous rocks should lead to the discovery of other reservoirs.

It is believed that the Devonian limestone is the source of the gas and petroleum products of Northern Alberta, while the porous Dakota sandstone forms the reservoir into which they have risen and in which they have been retained by the overlying shales. The Dakota sandstone is the productive formation at the mouth of Pelican river, and it is also believed to be the gas-bearing formation at Bow island, in Southern Alberta. As the Devonian limestone and Dakota sandstone are of wide distribution and probably underlie the western part of Manitoba and a great part of Saskatchewan and Alberta, the prospects for the discovery of other gasfields seem favourable. On account of the great thickness of sediments overlying these formations, the driller, however, must be prepared to go to a considerable depth.

"The topography of the district included within the provinces discussed in the following report, says Dowling ("Coalfields of Manitoba, Saskatchewan, Alberta, and Eastern British Columbia," page 16), "consists of many diverse types, due both to structure and erosion. The most prominent feature is the Rocky mountains. This series of ranges, as will be seen from maps of such areas as the Crowsnest or Cascade coal-fields, is merely a series of inclined blocks of the harder rocks upon which the softer Cretaceous beds have been laid.

"They present a rugged outline and steep faces from weathering and glacial erosion, but their topographic features do not indicate great age, as is shown by the close connection between their structure and present form.

"The three provinces to the east of the mountains, although generally called plains, are in reality undulating tablelands, which may be divided roughly into four topographic divisions :—

"The first consists of a plain lying upon the Archæan floor, from which all but the Palæozoic rocks have been removed ; and in Manitoba this is smoothed over by deposits of glacial drift and by the sediments laid down by the glacial lake Agassiz.

"The second is a plateau which has for its eastern edge the north-eastern escarpment of the Cretaceous shaly deposits.

"The third division is more diverse in character, but is roughly outlined on its eastern edge by the elevation known as the Coteau. The rocks which are exposed throughout this division have a larger proportion of sandstones among them than in the second. To this, no doubt, is due the greater relief in the topography.

"The fourth division may be called the foothills area, and the character of its topography is due more to structure than to drainage denudation. The foothills consist generally of ridges of inclined strata running parallel to the Rocky mountains, cut through at intervals by stream valleys.

"First division.—This is the lowest in elevation and is essentially a region of lakes, with the exception of the southern end, which is covered by silts and clays of lacustrine deposition—now forming the fine farming lands of Southern Manitoba. The drainage is northward to the Nelson river, which flows to Hudson Bay. The surface features east and north of Lake Winnipeg differ from those to the west in that this eastern part is mostly of the mammillated character usually found in a country underlain by Archæan rocks, with but a thin mantle of surface drift.

"Second division.—The second topographic division consists of a plateau formed of shales and other soft rocks. The surface has suffered great denudation, so that its general elevation is hard to estimate, but a large portion of the area is nearly 1,000 feet above the level of the Manitoba lakes. Several valleys have been eroded through the escarpment. The wider openings are those through which flow the Assiniboine and Saskatchewan rivers, whose valleys, back from the face of the escarpment, show as deep narrow cuts with frequent scarped banks. The eastern edge of this plateau between the indentations formed by drainage channels forms the elevations known as the Pembina, Riding, Duck, Porcupine, and Pas mountains.

"In this division the drainage is divided between the general eastern drainage of the Qu'Appelle, Assiniboine and Souris waters, and the north-eastern drainage of the Saskatchewan.

"Third division.—This, extending from the Coteau to the foothills, may be considered as consisting of three sloping planes from which its recent topography has been derived. The dividing lines between these three planes are: the watershed between the two branches of the Saskatchewan and the valley of the Belly river. North of the watershed mentioned the country slopes generally from the mountains north-easterly, and is drained radially by streams that run to Hudson Bay and the Mackenzie valley. South from this the slope is south-eastward to the depression occupied by the Belly river. Southward again the slope changes to nearly east, but following the valley of the South Saskatchewan we find north of the Cypress hills and Wood mountains a slope to the north.

"On these plains the relief is very much accentuated by the fact that much of the country is bare of timber, but elevations such as the Cypress hills, standing 2,500 feet above the level of the railway at Irvine, or the Hand hills, which are 800 feet above the surrounding plain, become pronounced topographic features.

"Fourth division.—The topography of the foothills is much more diverse than that of the other three previously discussed. From the south the foothill area gradually widens to the north, and in the valley of the Crowsnest river, as it emerges from the mountains, the erosion has narrowed the foothill belt to a few miles. . . . . .

"The natural means of communication by waterways is restricted to the navigation of some of the lakes in Manitoba and the streams crossing the plains. The streams are navigable only at high water and they all have strong currents; hence the difficulties of navigation from shallow water and current combined are so great that overland transport is necessary. This is being supplied by the railway lines which traverse the area, generally in an east and west direction. The main line of the Canadian Pacific Railway was the first through line connecting the eastern and western adjacent portions of Canada. It crosses the Rocky mountains by the Bow River valley, through the Kicking Horse pass. Subsequently, branches from St. Paul to Moosejaw, and from Medicine Hat to Kootenay Landing passed through the coal-mining districts of Souris river and the Crowsnest pass. Two transcontinental lines now building—the Canadian Northern and the Grand Trunk Pacific—reach from Winnipeg to Edmonton. A third line—a branch of the Canadian Pacific—will shortly be completed to the same point. Transverse roads are also included in the present general scheme, such as the railway from Edmonton to Calgary, that from Calgary to McLeod, and McLeod to a connection in Montana. Another transverse route is provided by the Canadian Pacific and Canadian Northern branches from Prince Albert to Portal, on the Dakota boundary. The third set of transverse roads include a number in Manitoba. An outlet to Hudson Bay is also being located from the lower part of the Saskatchewan. It is probable also that not many years will elapse before one or more railways are run north to open up the Athabaska and Peace River district.

The world is waking to the possibilities of the great western plains of Canada as an agricultural country. There is every year a great influx of settlers from Europe, the United States, and the older Canadian provinces, and this will continue until the North-west becomes the home of millions of agriculturists. Towns are rapidly springing up as distributing centres, and villages are growing into cities. With the increase of population will come an increased demand for material for light and fuel, so that the finding of a market for oil and gas will be an easy problem and the demand will be sufficient to greatly stimulate the efforts of drillers.

In the area under study nearly all of the great geological systems are represented from the pre-Cambrian to the Recent or post-Pleistocene. The Palæozoic sediments consist chiefly of limestones and shales, while those of later age consist of shales and sandstones. Throughout the great plain these sediments lie nearly horizontal, although they are affected more or less by slight local undulations. Towards the Rocky mountains a downward warping of the strata forms a broad trough occupying a large part of Alberta and extending from the 112th meridian to the foothills. East of this trough is a broad anticline. In the foothills and in the Rocky mountains there is a great deal of folding and faulting, and the mountains consist of a series of great thrust fault blocks. The Palæozoic and Mesozoic sediments are widely distributed, while those of later age are more restricted in their distribution and lie in the great Alberta trough or form scattered elevations that have resisted erosion. To the west the Palæozoic and Mesozoic rocks are exposed through the agency of faulting, and to the east and north through absence of overlapping deposition and to some extent by subsequent erosion of the overlying beds. Good sections are also obtained in the erosion valleys of such rivers as the Athabaska and Peace.

(*To be continued*).

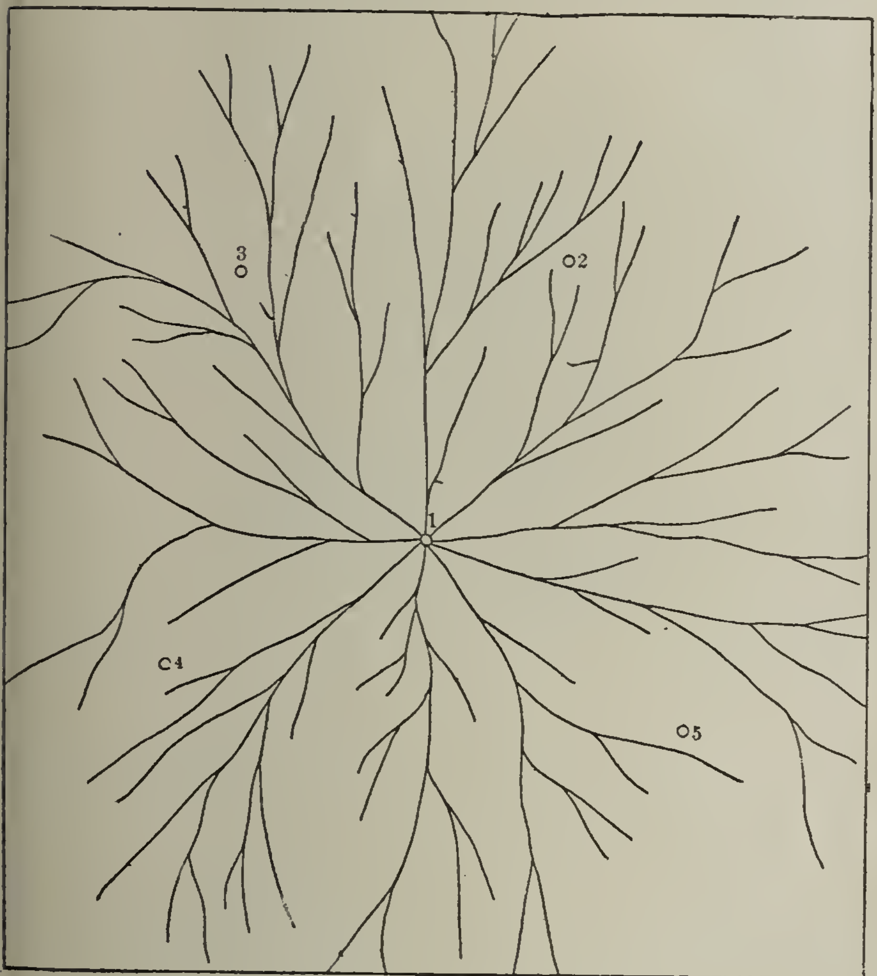
# THE DECLINE OF OIL-PRODUCING WELLS.

## POSSIBLE CAUSES AND SUGGESTED REMEDIES.

By Mr. L. G. HUNTLEY.

(*Continued from page* 30.)

SLICHTER demonstrates that in water wells in homogeneous formations, the total flow of two wells 200 feet apart is about 169 per cent. of the flow of a single well. If a third well be placed midway between the two, so as to make a row of three wells 100 feet apart, the total combined flow from the three wells is about 207 per cent. of the flow of a single well. On the basis of relative viscosities of light crude oils and water the same figure would apply approximately to oil wells 400 feet apart. This disregards differences in the porosity of the sand, varying gas pressures, etc. In a normally tight sand wells may be drilled closer together in order to drain the territory at the same rate, the character of the sand preventing excessive refrigeration due to the free escape of the gas. In such a tight sand neighbouring wells do not affect each other to the same degree as in a very porous stratum; that is, such pronounced drainage channels toward the wells first drilled are not formed.



Drainage Lines of One Well.

The sketch herewith, after Hager, indicates how the first well (1 in the sketch) drilled in loose unconsolidated formations, such as the tertiary and cretaceous sands of California and Louisiana, will set up drainage lines in all directions, so that later wells (2, 3, 4 and 5 in the sketch) will produce little or nothing, although there are still large quantities of oil in the field. Well No. 1, however, continues to produce prolifically. The second sketch on page 30 of last week's issue shows the lines of flow for two interfering wells in the case where one well has double the capacity of the other, the larger presumably having been drilled first.

Town-lot development and the conditions brought about by many operators with small leases fighting for production result in extravagant and wasteful methods of production. Likewise, in the case of the Government leases in Oklahoma—the so-called "short-term" leases—operators were led to drill uneconomically in order to extract the maximum amount of oil before the leases expired. Such development means uneconomical production throughout—drilling more wells than are necessary, pumping too fast, wasting gas pressure (and the gas itself), in flooding wells, and pumping one well against another, thereby creating underground conditions favourable for the encroachment of water.

To drain an oil property most efficiently, that is, to extract all the oil possible with a minimum number of wells and at an economical rate of production, it is essential to consider the best distance at which to space wells. This distance will, of course, differ for every producing stratum and for every field.

In a great many fields the territory is divided among a number of operators, each working against the other to extract the most oil possible before his neighbour has a chance to take it. This usually results in the holders of small leases drilling as many wells as possible close to the boundary lines, forcing the lessees of surrounding land to drill well for well in order to protect their own property. As a matter of course, in such cases, no attention is paid to the proper spacing of wells, nor to the probable effect of one well on another. When large operators control sufficient acreage the common practice in the older fields is to space wells from 400 to 500 feet apart.

As mentioned above, in some formations the first well drilled in a group will tend to set up drainage channels and divert large quantities of oil from a considerable area. Subsequent wells come in as much smaller producers than the original well. Again, in loose, unconsolidated sands, such as are found in the Caddo field in Louisiana and in the famous Glenn pool in Oklahoma, if a well stops pumping for a day the surrounding wells extend their own channels, breaking down the drainage system of the first well to the extent that it is often difficult to again recover oil from the well that has stopped pumping. As a result the wells in the Glenn pool are pumped 24 hours a day, 365 days in a year. The condition of the sand in the Glenn pool was brought about somewhat artificially by the use of enormous quantities of nitro-glycerine in shooting. The sand, originally coarse and porous, has probably been shattered throughout the entire producing area.

In certain lenticular formations, described by the oil man as "spotty," of two wells drilled only 150 feet apart one has been a large producer and the other a dry hole. This discrepancy may be due to drainage conditions or may be caused by an intervening hard spot in the oil sand. If it is caused by drainage conditions the stopping of the producing well would probably cause the other to produce. Again, wells 1,000 to 2,000 feet apart are in places so closely connected underground that the muddy water used in drilling one well has been pumped out by another well a considerable distance away, not necessarily the well nearest to the one being drilled. This condition is common in the Caddo field in Louisiana, and in other fields producing from the unconsolidated gravels and sands of the cretaceous and tertiary formations.

In a previous paragraph is mentioned a case in the Vinton pool in Louisiana, in which a well, drilled near a good producer, encountered a loose coarse pay sand. In the producer the sand was so loose that the rotary bit of its own weight immediately sank to the bottom. The second well struck sand, seemingly of the same nature, which immediately "packed," so that drilling was necessary to penetrate it. The second well never produced; moreover, the sand "packed" in the original well, which, likewise, ceased to produce.

The Triumph pool in Pennsylvania was operated by means of gas pumps, so that there was a minus pressure of ten to twelve ounces at each well. It is possible that the Vinton pool, which is a small isolated pool in which all the wells drilled were producers at the time mentioned, was being operated under similar circumstances. There being no water to take the place of the oil extracted, when the second well was drilled the sudden application of atmospheric pressure was sufficient to pack the sand and force the oil in the vicinity to other parts of the field where wells were being pumped. The oil is of a heavy asphalt base, with no gas content, and no water was encountered.

It is possible that the sudden flooding of some oil pools is occasioned by the drilling of a well into the water at a strategic point, thus putting an added pressure of fifteen pounds per square inch behind the water, which perhaps lacked less than this amount of the force necessary to flood the oil-bearing district. Such a balance of forces would, of course, be rare and difficult to anticipate. Possibly a series of water wells drilled from time to time as the pressure in an oil pool diminished might reduce the rapidity of the flooding, and yet be the direct means of flooding the oil-producing wells. However, practically the writer knows of no instance where such a procedure would have been warranted.

Again, the production of wells in pools producing heavy oils with little or no gas pressure, such as some small pools situated on quaquaversal domes along the Gulf coastal plain, might be increased by drilling air holes on the outskirts of the pools, thereby creating a draught from these points to the wells located in the centre of production. If this should be done in pools situated in flat-lying strata or on very slight dips, the use of the gas pump to aid small wells might be avoided in some instances, the atmospheric pressure creating a flow of oil. This plan would at least be safer than an artificial flooding with water, if the underground conditions are practically unknown.

Many wells cease to produce at an economical rate because of poor management of the numerous mechanical details. Some of these are enumerated below, but it may be said that it is in the surface management of wells that greatest improvement has taken place since the early days of petroleum production. In fact, it is remarkable to consider the great variety of time and labour-saving contrivances now in use, as against the great dearth of information regarding underground conditions.

Casing corrodes more in some districts than in others. It is often allowed to deteriorate without attention until the result is the admission of water to the productive stratum from overlying formations or from the surface. This cause of decreasing production needs only the simple remedy of proper attention.

In most fields where producing wells are closely grouped, as many of them as possible are pumped from a common power plant by "shackles" or "jerk lines." Some of the wells may be pumping from several different producing formations at the same time. Especially in the high-grade oil fields each well requires different handling, and the rate and the length of time for pumping most effective at one period of its life will not produce the best results at another. Although this variation is obviated to some extent by the use of "bleeders," "leaky valves," and other devices for automatically stopping the pumping of oil before the face of the sand is uncovered, yet such regulation is crude and leaves much to be desired. "Pumping by heads" is a step in the right direction, in that it conserves the gas pressure in the pool for the continued expulsion of oil, and also tends to keep back salt water under pressure. However, under present practice it is impossible to judge the best possible time to pump and the proper height of oil column to leave in the well at all times. An automatic control, with valves set to start pumping upon the accumulation of a certain maximum pressure and to stop pumping upon the exhaustion of the oil to a certain set depth, would add greatly to the production in many cases, and would eliminate the possible negligence and usual lack of knowledge of the average pumper. Several automatic control devices are said to be on the market, and one at least has been tested with success. The problem of applying them is solely mechanical, and there can be little question as to the advisability of the use of such devices at a great many wells.

Incorrect pumping methods, by which a well is pumped too fast or too often or too deep, produce several bad results. The expansive force of the gas and its aid in the movement of the oil is lost by the gas being allowed to escape freely. Instead, only such an amount of gas as is associated with the head of oil pumped should be allowed to escape.

(*To be continued.*)

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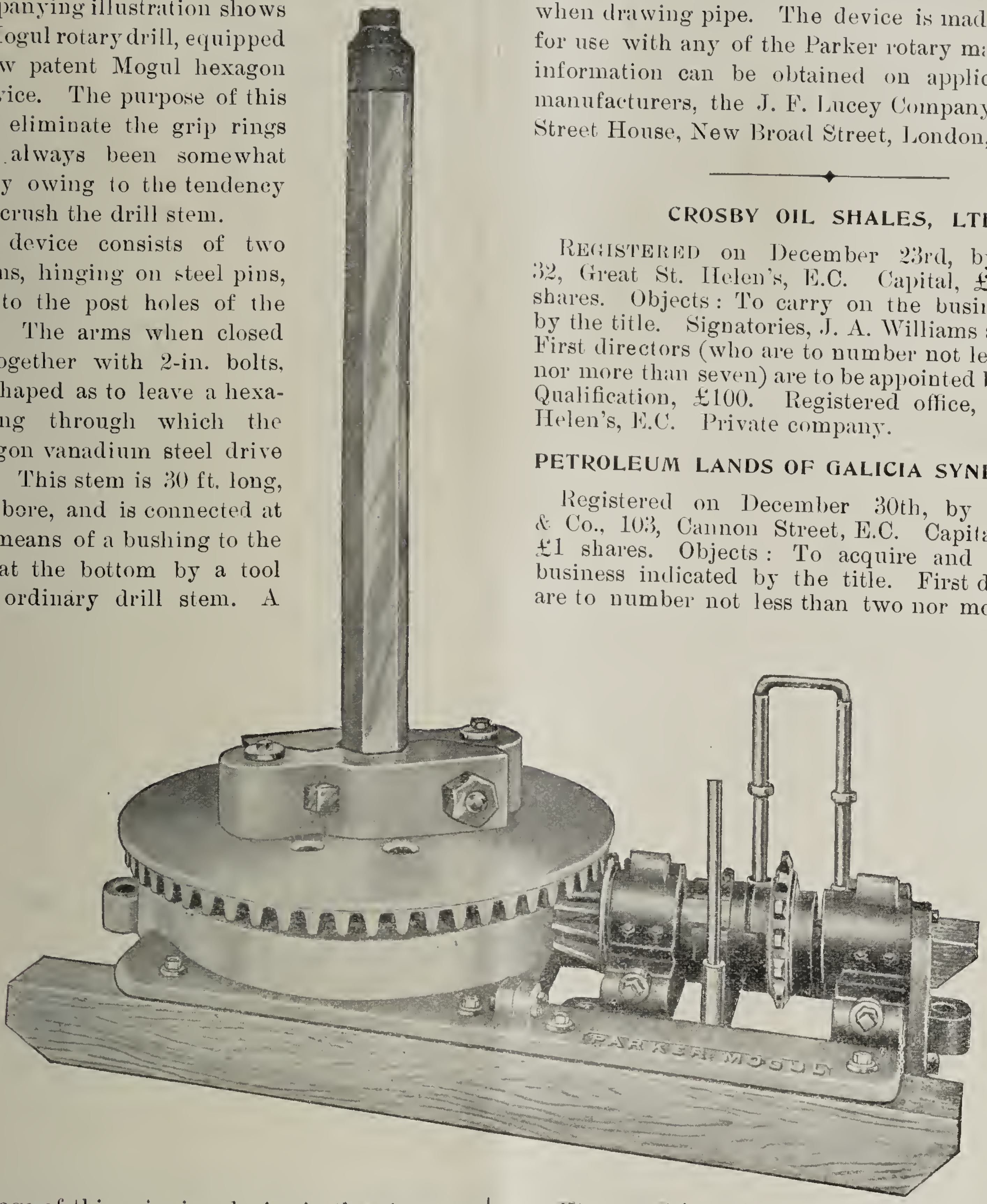
# Mogul Patent Hexagon Rotary Gripping Device.

The accompanying illustration shows the Parker-Mogul rotary drill, equipped with the new patent Mogul hexagon gripping device. The purpose of this device is to eliminate the grip rings which have always been somewhat unsatisfactory owing to the tendency to score and crush the drill stem.

The new device consists of two gripping arms, hinging on steel pins, which fit into the post holes of the rotary table. The arms when closed are bolted together with 2-in. bolts, and are so shaped as to leave a hexagonal opening through which the special hexagon vanadium steel drive stem passes. This stem is 30 ft. long, with a 3-in. bore, and is connected at the top by means of a bushing to the swivel, and at the bottom by a tool joint to the ordinary drill stem. A minor advantage of this gripping device is that it provides a flat surface to accommodate the slide tongs when drawing pipe. The device is made in two sizes for use with any of the Parker rotary machines. Full information can be obtained on application to the manufacturers, the J. F. Lucey Company, 1—5, Broad Street House, New Broad Street, London, E.C.



◆

### CROSBY OIL SHALES, LTD.

Registered on December 23rd, by F. E. Fry, 32, Great St. Helen's, E.C. Capital, £25,000 in £1 shares. Objects: To carry on the business indicated by the title. Signatories, J. A. Williams and F. E. Fry. First directors (who are to number not less than three nor more than seven) are to be appointed by signatories. Qualification, £100. Registered office, 32, Great St. Helen's, E.C. Private company.

### PETROLEUM LANDS OF GALICIA SYNDICATE, LTD.

Registered on December 30th, by S. Hardman & Co., 103, Cannon Street, E.C. Capital, £10,000, in £1 shares. Objects: To acquire and carry on the business indicated by the title. First directors (who are to number not less than two nor more than five) are Vincent Schnayder and Wolf Krohn. Registered office, 115, Cannon Street, E.C. Private company.

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# Imports of Petroleum Products into the United Kingdom.

## COMPLETE CLASSIFIED LIST FOR 1913.

In the following table we give a complete classified list of all petroleum products imported into the United Kingdom during the past year, the figures being in gallons :—

| Country. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar) | Benzine. | Fuel Oil. | Other Descriptions. | Totals. |
|---|---|---|---|---|---|---|---|---|
| Belgium ... | 250 | 758,433 | — | — | 73,970 | 120 | 5,270 | 848,843 |
| Canada ... | — | 19,390 | 72,310 | — | — | — | — | 91,700 |
| Dutch Indies... | 70 | — | — | — | 45,147,050 | 382,227 | — | 45,529,347 |
| Germany ... | 239,090 | 3,518,740 | 600 | 211,810 | 651,640 | 800 | 4,610 | 4,627,290 |
| Holland . | — | 12,560 | — | — | 7,686,340 | — | 590 | 7,699,490 |
| Mexico ... | 5,753,800 | — | — | 1,038,280 | 1,529,190 | 12,941,960 | 4,400 | 21,267,630 |
| Roumania ... | 20,712,357 | 312,210 | — | 1,150,000 | 5,802,950 | 10,080,210 | — | 38,057,727 |
| Russia ... | 9,844,560 | 12,974,961 | 523,370 | — | 13,163,660 | — | — | 36,506,551 |
| U.S.A. ... | 120,369,807 | 47,910,214 | 253,575 | 62,997,840 | 23,706,880 | 7,701,550 | 944,405 | 263,884,411 |
| Other countries | 80 | 177,570 | 480 | — | 4,859,240 | 62,870 | 1,102,360 | 6,202,600 |
|  | 156,920,014 | 65,684,078 | 850,275 | 65,397,930 | 102,620,920 | 31,169,737 | 2,061,635 | 424,715,589 |

## THE GALICIAN UNION OF OIL PRODUCERS.

FROM the report of the Galician Union of Oil Producers it is seen that for the year from May 1st, 1912, to April 30th, 1913, the total production was 996,120 tons. The Union receives from its own members 389,730 tons, or about 41 per cent. In the open market the Union has sold 331,238 tons, or 81 per cent.: delivered to the Government 71,500 tons, or about 19 per cent. This latter has realised 46,500 tons at a price of 30·9 kr. per ton and 25,000 tons according to the old agreement at 26·4 kr. The oil sold by the Union on the open market has realised on an average 59·5 kr., as against 33·8 kr. per ton last year.

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## WRECK OF THE OIL TANKER "OKLAHOMA."

THE oil-tank steamer "Oklahoma" foundered during the early part of this week at a point 57 miles south of Sandy Hook and became a total wreck. A part of the crew was rescued, but the majority were drowned. The United States Government has already destroyed the wrecked tanker, owing to its being considered a danger to navigation.

The "Oklahoma" was built for the Gulf Refining Company by the New York Shipbuilding Company some few years ago, and was one of the largest built in American shipyards. Her overall length was 441 feet, and her capacity was 2,520,000 gallons of oil in sixteen tanks.

## RAPID DRILLING WITH A PERCUSSION OUTFIT IN ENGLAND.

WE have received from the Perkins Macintosh Petroleum Tool and Boring Company, Ltd., of St. Albans, a short report of the drilling operations for water that this firm have undertaken for the Sheerness Council, under instructions from Mr. F. H. S. Stanton, A.M.I.C.E., to augment the water supply of the town. The firm are using a rig and derrick built on the Canadian-Galician Pole Percussion system, such as they supply for the prospective drilling for oil; and the drilling is being conducted under the personal supervision of Mr. Cyrus F. Perkins, a director of the firm.

The drilling was commenced on November 26th last with a bore sufficiently large to take 16-in. i/d tubing, and by December 13th had reached a depth of 322 ft. 6 in. On December 15th, 16th and 17th the drilling operations were suspended for the purpose of overhauling the boiler and inserting 320 ft. of tubing, and drilling was resumed on the night of December 17th, and by the 31st had reached a depth of 691 ft. with a 14-in. hole. We are informed that from January 1st to the 5th a further 200 ft. had been drilled, making up to that date a total of 891 ft.

It is not generally known that this firm, in addition to manufacturing their well-known oil-well drilling outfits, makes a speciality of deep drilling for water in this country and have put down a number of wells, including one at Shoeburyness, for the War Office, and one which reached 2,225 ft. We understand that the well at Sheerness is to be ultimately carried to a depth of 1,400 to 1,500 ft.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co, 61, St. Mary Axe, E.C.

January 9th, 1914.

The market prices for Refined Petroleum remain unchanged, prices being for:—Roumanian, 8d.; Russian, 8½d.; Galician, 8d.; American, 8½d.; American Water White, 9½d.

### LUBRICATING OILS

are unaltered as follows:—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 12s. 6d.
American dark, from £11. 2s. 6d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL

The current price is 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 80s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

The retail price in London is unchanged at 1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality.

### TURPENTINE.

The American Turpentine market has been very firm, and considerable business has ensued during the week, quotations for spot, 32s. 9d.; February/April, 33s. 3d.; May/August, 34s.

## LIVERPOOL.

January 7th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, December 10th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... .. ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... . ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. .. ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, January 7th.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

PHILADELPHIA, January 7th.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, January 6th.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, January 6th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 37–37½ copecs per pood spot. Kerosene, 46–47 copecs. Residuals, 36¼–36½ copecs.

## ROUMANIA.

January 6th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 5·50–6·25 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bana ... | 9·50–10·80 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

January 6th.

Crude oil is quoted 8·58 kronen spot. Kerosene, 29½–30 kronen at Oderberg. Benzine, 690/700, 47 kronen; 700/710, 45 kronen, at Oderberg. Gas oil, 7·50–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date January 8th as follows:—

Prices are steady as under:—

1c 18¾×14 124 sheets 110 lbs. ... 13/4½ per box.
1c 20 ×10 225 ,, 156 ,, ... 18/6 ,,

F.o.b. Swansea. Tin lining and iron hooping extra.

Below we give the Exports of Tin Plates for 1912 and 1913.

EXPORTS OF TIN PLATES.

| | Year ended 31st December. | |
|---|---|---|
| | 1912. | 1913. |
| | Tons. | Tons. |
| To Russia ... ... ... ... .. | 9,675 | 9,921 |
| ,, Norway ... ... ... ... ... | 31,503 | 25,166 |
| ,, Germany ... ... ... ... ... | 41,379 | 34,739 |
| ,, Netherlands ... ... ... ... | 44,156 | 43,009 |
| ,, Belgium ... ... ... ... ... | 18,875 | 13,363 |
| ,, France ... ... ... ... ... | 31,930 | 21,318 |
| ,, Portugal... ... ... ... ... | 15,797 | 14,873 |
| ,, Italy ... ... ... ... ... | 21,478 | 20,418 |
| ,, Roumania ... ... ... ... | 35,920 | 10,927 |
| ,, China (including Hong Kong) ... ... ... ... | 15,406 | 21,535 |
| ,, Japan ... ... ... ... ... | 23,236 | 28,231 |
| ,, United States of America ... ... ... ... | 2,135 | 21,516 |
| ,, Argentine Republic ... ... ... | 10,283 | 19,330 |
| ,, British E. Indies ... ... ... | 54,214 | 68,987 |
| ,, Australia ... ... ... ... | 29,201 | 28,961 |
| ,, Canada ... ... ... ... ... | 7,297 | 9,950 |
| ,, Other Countries... ... ... ... | 88,638 | 102,677 |
| Total Tons ... ... ... ... | 481,123 | 494,921 |
| Total Value ... ... .. | £6,833,292 | £7,220,666 |

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

Specially prepared for this Journal by the Customs House.

FOR THE WEEK ENDED JANUARY 5TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Dec. | LONDON— | | | |
| 8 | British Petroleum Co. | Fuel | 77,670 | Kustendje |
| 30 | F. Chiesman & Co. | Lub. | 6,200 | New York |
| 30 | Ragosine & Co. | ,, | 5,190 | ,, |
| 30 | Mordaunt Bros. | ,, | 4,600 | ,, |
| 30 | Scott's Wharf | ,, | 5,000 | ,, |
| 30 | Langley, Smith & Co. | ,, | 8,520 | ,, |
| 30 | Produce Brokers Co. | ,, | 4,800 | ,, |
| 30 | A. E. Smith | ,, | 420 | Marseilles |
| 30 | London Oil Storage Co. | ,, | 4,000 | Antwerp |
| 30 | Hanseatic Maritime Agency | ,, | 100 | Bremen |
| 31 | United Shipping Co. | ,, | 1,000 | Riga |
| 31 | Vacuum Oil Co. | ,, | 7,110 | New York |
| 31 | J. Thompson | Lub. Gr. | 2,920 | ,, |
| 31 | Anglo-American Oil Co. | Lub. | 56,000 | ,, |
| 31 | Worthington & Boler | ,, | 3,600 | Philadel. |
| 31 | Bowring Petroleum Co. | ,, | 11,400 | ,, |
| 31 | Port Authority | ,, | 6,100 | Hamburg |
| Jan. | | | | |
| 1 | Lubricating & Fuel Oils Co. | ,, | 33,300 | Philadel. |
| 1 | Langley, Smith & Co. | ,, | 4,510 | ,, |
| 1 | Grindley & Co. | ,, | 4,000 | New York |
| 1 | Adams' Export Co. | ,, | 40 | ,, |
| 1 | Produce Brokers Co. | ,, | 5,200 | Baltimore |
| 1 | Hanseatic Maritime Agency | ,, | 90 | Bremen |
| 2 | Anglo-American Oil Co. | Naphtha | 642,140 | Kustendje |
| 2 | ,, ,, | Fuel | 1,207,910 | ,, |
| 2 | ,, ,, | Gas | 538,470 | New York |
| 2 | ,, ,, | ,, | 1,160,960 | Sabine |
| 3 | J. W. Cook & Co. | Lub. | 15,240 | Philadel. |
| 3 | Bowring Petroleum Co. | ,, | 8,810 | ,, |
| 3 | Port Authority | ,, | 40 | Hamburg |
| 3 | British and Foreign Wharf | ,, | 100 | Antwerp |
| 5 | Anglo-American Oil Co. | ,, | 36,000 | Philadel. |
| 5 | Mercantile Lighterage Co. | ,, | 3.800 | ,, |
| 5 | Scott's Wharf | ,, | 5,000 | New York |
| 5 | Leach & Co. | ,, | 240 | Ghent |
| 5 | British Petroleum Co. | Gas | 55,000 | Amsterdam |
| Dec. | LIVERPOOL— | | | |
| 30 | C. W. Field | Lub. | 210 | Antwerp |
| 30 | Dee Oil Co. | ,, | 400 | Hamburg |
| 30 | Anglo-American Oil Co. | Lub. Gr. | 1,000 | New York |
| 31 | J. Light & Son | ,, | 400 | Hamburg |
| 31 | ,, | Lub. | 3,000 | N. Orleans |
| 31 | Vacuum Oil Co. | ,, | 36,210 | New York |
| 31 | Worthington & Boler | ,, | 1,200 | ,, |
| 31 | Burnaby & Chantrell | Lub. Gr. | 780 | ,, |
| 31 | Meade-King, Robinson & Co. | Lub. | 7,160 | ,, |
| 31 | ,, ,, | ,, | 7,800 | Baltimore |
| Jan. | | | | |
| 1 | Bramwell, Fern & Co. | Lub. Gr. | 720 | New York |
| 1 | Liverpool Warehousing Co. | Lub. | 2,700 | ,, |
| 1 | Anglo-American Oil Co. | ,, | 33,400 | ,, |
| 1 | Huxley & Co. | ,, | 1,100 | ,, |
| 2 | White Star Line | ,, | 47,600 | ,, |
| 2 | W. Crawford | Lub. Gr. | 440 | ,, |
| 2 | Valvoline Oil Co. | ,, | 210 | ,, |
| 2 | ,, ,, | Lub. | 28,290 | ,, |
| 3 | F. Schofield & Co. | ,, | 2,600 | ,, |
| 3 | Anglo-American Oil Co. | Lamp | 372,880 | Philadel. |
| 3 | ,, ,, | Gas | 704,690 | ,, |
| 3 | Bahr, Behrend & Co. | Lub. | 430 | Stavanger |
| 5 | Pickford's | ,, | 500 | Antwerp |
| 5 | ,, | Lub. Oil and Gr. | 300 | Hamburg |
| | BARROW— | | | |
| 27/12 | Asiatic Petroleum Co. | Benzine | 1.135,000 | Rangoon |
| | BRISTOL— | | | |
| 29/12 | J. R. Bush | Lub. | 31,000 | New York |
| 29/12 | P. Matthews & Co. | ,, | 160 | Antwerp |
| 31/12 | Heaton & Co. | ,, | 420 | ,, |
| 1 | H. Pritchard & Co. | ,, | 630 | ,, |
| 2 | Asiatic Petroleum Co. | Benzine | 617,000 | Singapore |
| 2 | Pickford's | Lub. Oil and Gr. | 350 | Hamburg |
| 3 | E. Stock & Sons | Lub. | 360 | ,, |
| Jan. | BRISTOL— | | | |
| 3 | H. Pritchard & Co. | Lub. | 4,200 | New York |
| 5 | Ford & Canning | ,, | 33,740 | ,, |
| 5 | C. Hill & Sons | ,, | 14,480 | ,, |
| | CARDIFF— | | | |
| 30 12 | Bristol Steam Navig. Co. | Lub. Gr. | 590 | Hamburg |
| 31/12 | Collins & Partners | Lub. | 1,000 | Antwerp |
| | GRIMSBY— | | | |
| 29/12 | J. Sutcliffe & Son | ,, | 150 | Hamburg |
| 30/12 | ,, ,, | ,, | 1,200 | Antwerp |
| 1 | ,, ,, | ,, | 80 | ,, |
| | HARWICH— | | | |
| 29/12 | Great Eastern Railway | ,, | 240 | ,, |
| 1 | ,, ,, | ,, | 90 | ,, |
| 2 | ,, ,, | ,, | 200 | ,, |
| | HULL— | | | |
| 30/12 | T. Wilson, Sons & Co. | ,, | 2,000 | Riga |
| 30/12 | ,, ,, | ,, | 42,520 | New York |
| 1 | W. Gilyott & Co. | ,, | 22,600 | ,, |
| 1 | Wilson's & N. E. Railway | ,, | 160 | Hamburg |
| 2 | ,, ,, | ,, | 560 | Antwerp |
| 2 | T. Wilson, Sons & Co. | ,, | 480 | New York |
| 3 | Meade-King, Robinson & Co. | Benzine | 25,000 | Rotterdam |
| 5 | T. Wilson, Sons & Co. | Lub. | 560 | Hamburg |
| | MANCHESTER— | | | |
| 31/12 | J. T. Fletcher & Co. | Lub. Oil and Gr. | 840 | Antwerp |
| 3 | McLiners, Ltd. | Lub. | 4,000 | Philadel. |
| 5 | Worthington & Boler | ,, | 4,490 | ,, |
| 5 | Anglo-American Oil Co. | Gas | 673,000 | ,, |
| 5 | Liverpool Storage Co. | Lub. | 30,340 | New York |
| 5 | Diamond Lubricating Co. | Lub. Oil and Gr. | 5,940 | ,, |
| 5 | W. W. Jones, Dooly & Co. | Lub. | 9,500 | ,, |
| 5 | F. Schofield & Co. | ,, | 19,940 | ,, |
| 5 | Vacuum Oil Co. | ,, | 210 | Hamburg |
| | MIDDLESBROUGH— | | | |
| 31/12 | E. Harris & Co. | ,, | 960 | Antwerp |
| | NEWCASTLE— | | | |
| 31/12 | Tyne-Tees Steamship Co. | ,, | 800 | ,, |
| 31/12 | ,, ,, | Crude | 200 | ,, |
| 31/12 | ,, ,, | Lub. | 40 | Ghent |
| 31,12 | ,, ,, | ,, | 800 | Hamburg |
| 3 | P. H. Matthiessen & Co. | ,, | 770 | Bergen |
| | PLYMOUTH— | | | |
| 2 | Plymouth and Stonehouse Gas Co. | Gas | 520,800 | New York |
| | SOUTHAMPTON— | | | |
| 29/12 | P. E. Curry | Lnb. | 2,670 | New York |
| 3 | ,, | ,, | 110 | ,, |
| | SWANSEA— | | | |
| 31/12 | R. Turpin & Co. | ,, | 500 | ,, |
| 31/12 | Bristol Steam Navig. Co. | ,, | 200 | Antwerp |
| | ABERDEEN— | | | |
| 30/12 | R. C. Reid & Co. | ,, | 2,000 | Hamburg |
| 31/12 | Meade-King, Robinson & Co. | Benzine | 15,000 | Rotterdam |
| | GLASGOW— | | | |
| 30/12 | Anchor Line | Lub. | 76,460 | New York |
| 30/12 | Clyde Shipping Co. | ,, | 5,120 | Antwerp |
| 30/12 | ,, | Lub. Gr. | 260 | ,, |
| | LEITH— | | | |
| 5 | Jas. Currie & Co. | Lub. | 820 | Hamburg |
| | BELFAST— | | | |
| 3 | G. Heyn & Sons | ,, | 740 | Riga |
| | LIMERICK— | | | |
| 31/12 | Limerick Steamship Co. | ,, | 240 | Hamburg |
| | | | 8,491.020 | |
| | Deduct— | | | |
| | BRISTOL— | | | |
| 17/11 | British Petroleum Co. | Gas | 3,130 | Port Arthur |
| 13/12 | C. Hill & Sons | Lub. | 2,650 | New York |
| | | | 8,485,240 | |

From Lloyd's

January 8th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | San Francisco | Iquique | Arr. Dec. 31 |
| AMERICAN | Antwerp | Philadelphia. | Arr. Dec. 23 and cl. Dec. 24 on return |
| APPALACHEE* | Sunderland | New York | Pd. Dunnet Hd. Dec. 21 |
| APSCHERON | Antwerp | Batoum | Pd. Dard. Jan. 2 |
| ARAL | Tyne | New York | Pd. Cape Wrath Jan. 2 |
| ARAS | Sabine | Hamburg | Pd. Lizard Jan. 7 |
| ARCA | Barrow | Cardiff | Arr. Jan. 1. In port Jan. 7 for Algiers |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Arr. Rotterdam Dec. 31. In port Jan. 6 |
| ASHTABULA* | San Francisco | Antofagasta | Arr. ab't Dec. 24 |
| ASTRAKHAN | Novorossisk | Cette | Arr. Jan. 2 |
| AUREOLE | London | Norfolk, Va. | Pd. Lizard Dec. 25 |
| AZOV | Talara Bay | San Francisco | L. Dec. 16 |
| BAKU STANDARD | Kustendje | Hamburg | Pd. Dard. Dec. 28 |
| BALAKANI □ | Port Arthur. | Avonmouth & Manchester | L. Newport News Jan. 3 |
| BATOUM | London | New York | Cl. Jan. 6 |
| BAYONNE | Venice | Kustendje | L. Jan. 3 |
| BEACON LIGHT | Newport | Kustendje | L. Dec. 24 |
| BLOOMFIELD | Tuxpan | Galveston | Arr. Jan. 5 |
| BORJOM | Trieste | Batoum | Cl. Constantinople Dec. 26 |
| BRILLIANT (Br. Bq.) | Philadelphia. | Kobe | Arr. Aug. 10. In port Oct. 29 for U.S. |
| BRILLIANT | Dantzig | Sabine | Pd. Sand Key Jan. 6 |
| BRITISH SUN | — | Hamburg | ? Pd. Dungeness Jan. 8 |
| BROADMAYNE | Dartmouth | New York | Arr. Jan. 6 |
| BUFFALO | Hong Kong | Mi-ike | L. Dec. 29 |
| BULLMOUTH △ | Karatzu | Balek Pappan | L. Dec. 20 |
| BULYSSES | Rangoon | Kurrachee | L. Dec 29 |
| BURGERMEISTER PETERSEN | Stockholm | Tyne & New York | Arr. Tyne Jan. 4. In port Jan. 6. |
| BUYO MARU | Singapore | Calcutta | Arr. Dec. 15 |
| C. A. CANFIELD* | Tampa | Tuxpan | L. Dec. 21 |
| CALCUTTA (Br. Bq.) | San Francisco | Yokohama | L. Nov. 10 |
| CAMILLO | Port Arthur. | Portsmouth | Arr. Dec. 23 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | ThamesHaven | Malta | L. Dartmouth Jan. 5 |
| CARPATHIAN □ | Port Arthur. | Hamburg | L. Newport News Jan. 5 |
| CAUCASIAN □ | Port Arthur. | London | Pd. Lizard Jan. 8 |
| CHARLES E. HARWOOD | Aransas | New Orleans. | Arr. Dec. 18 |
| CHARLOIS | Sabine | Rotterdam | Arr. Dec. 30. In port Jan. 6. |
| CHATHAM | New York | Tampico | L. Dec. 26 |
| CHESTER | Sabine | Antwerp | L. Norfolk, Va., Dec. 23 |
| CHEYENNE | Novorossisk | — | Pd. Gib. Jan. 5. |
| CHIRA (Tug) | — | — | Coasting Peru and Ecuador |
| CIRCASSIAN PRINCE | — | — | T. W.C. South America |
| CITY OF EVERETT | New Orleans | New York | 240 miles N.W. of Tortugas Dec. 24 |
| CLAM △ | Amsterdam | Tyne | Arr. Dec. 27. In port Jan. 6 |
| CLEARFIELD | Galveston | Tuxpan | L. Dec. 9 |
| COMANCHEE | Liverpool | Manchester | Arr. Jan. 3 |
| CONCH △ | Suez | Aroe Bay | Pd. Perim Jan. 6 |
| CONRAD MOHR | New York | Bergen | L. Dec 26 |
| CORDELIA | San Francisco | Taltal | L. S. Luis Dec. 4 |
| COWRIE △ | San Francisco | Shanghai | Put back San Francisco after being ashore |
| CURRIER | Boston | Cardenas | 30 miles N. Cardenas Dec. 21 |
| CYMBELINE | Rouen | Newport | Arr. Jan. 6. In port Jan. 7 |
| CZAR NICOLAI II. | Hamburg | Batoum | Arr. Jan. 2 |
| DAGHESTAN | Batoum | Dunkirk | Pd. Dard. Dec. 27 |
| DANUBIAN □ | Amsterdam | Port Arthur | Pd. Dungeness Dec. 30 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Sp. Nov. 30 on the Line 106 E. |
| DELAWARE* | ThamesHaven | Novorossisk. | L. Dec. 28 |
| DELPHIN | Rostock | Baton Rouge | Arr. Tyne Jan. 7 |
| DERBENT | Batoum | Taranto | Arr. Jan. 3 |
| DESALBA | Tyne | Port Horford (Calif.) | 40 miles S.W. of Land's End Dec. 3 |
| DEUTSCHLAND | Baton Rouge | Rotterdam | L. Norfolk, Va.. Dec. 31 |
| DIAMANT | Philadelphia. | Stettin | Pd. Scaw Jan. 5 |
| DONAX | Portishead | Barrow | L. Jan. 5 |
| EBURNA | Abadan | Suez | Pd. Perim Jan. 6 |
| EDWARD L. DOHENEY | Sabine | Tampico | L. Dec. 25 |
| EL LOBO | Lobitos | San Francisco | Arr. Dec. 31 |
| EL SEGUNDO | Seattle | San Francisco | Arr. Dec. 11 |
| EL TORO | Tyne & London | Galveston | 30 miles S.W. of Niton Dec. 25. |
| ELAX △ | New Orleans | Trieste | L. Jan. 1 |
| ELISE MARIE | Helsingborg | Philadelphia. | Arr. Tyne Jan. 6 |
| ELSINORE | Emden | Galveston | Pd. Dover Dec. 21 |
| EMANUEL NOBEL | Batoum | Antwerp | Arr. Dec. 28. In port Jan. 6 |
| ENERGIE | New Orleans. | Tampico | L. Port Eads Dec. 25 |
| ERIVAN | St. Louis, Rhone | Batoum | Arr. Dec. 30 |
| ESCALONA | Port Arthur, | Tampa | L. Dec. 22 |
| ESTURIA | Balek Pappan | Singapore | L. Jan. 1 |
| EUPION | Alloa | Sunderland | Arr. Nov. 28. In port Dec. 12 |
| EUPLECTELA △ | Alexandria | Singapore | Arr. Jan. 3 |
| EXCELSIOR | Rotterdam | Sabine | 20 miles W. of Niton Jan. 4 |
| F. A. TAMPLIN | London | P. Mexico | Arr. Dec. 30 |
| FRANCE MARIE (Belgian Ship) | Tampico | Port Arthur | Arr. Nov. 30 |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | — | — | At New Orleans |
| GENESSE* | Manchester | Philadelphia. | Arr. Dec. 31 |
| GEORGIAN PRINCE | Spezia & Norfolk, Va. | — | Pd. Sand Key Jan. 5 |
| GOLDMOUTH △ | Balek Pappan | — | Pd. Gib. Jan. 6 |
| H. C. HENRY | Balek Pappan | — | Pd. Beachy Hd. Jan. 6 |
| HAGEN | New York | Hamburg | Arr. Dec. 30. In port Jan. 6 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | Tocopilla | San Francisco | L. Dec. 22 |
| HARRY LUCKENBACH | Baltimore | Galveston | L. Dec. 22 |
| HARRY WADSWORTH* | Vera Cruz | Tampico | L. Nov. 19 |
| HELIOS | Hamburg | New York | Arr. Jan. 2 |
| HERA | Emden | Philadelphia | 60 miles W. of Lizard Jan. 2 |
| HERBERT G. WYLIE | Galveston | Tampa | L. Dec. 23 |
| HERMIONE | Portland, Dor. | Port Arthur | Arr. Jan. 6 |
| HESPERUS | San Francisco | Junin | Arr. Dec. 31 |
| HORLEY | Baltimore | Tampico | Pd. Cape Henry Dec. 25 |
| HOTHAM NEWTON | Dunkirk | Hull | Arr. Dec. 31. In port Jan 6 |
| HYRCANIA | Port Arthur. | NewportNews | L. Dec. 30 |
| ILLINOIS | Antwerp | New Orleans | Arr. Jan. 1 |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IROQUOIS (Towing Barge Navahoe) | London | New York | Arr. Dec. 28. |
| J. B. AUG. KESSLER | Rangoon | Gibraltar | L. Port Said Jan. 5 |
| J. OSWALD BOYD | Clyde & Manchester | Tampico | Pd. Eastham Nov. 21 |
| JULES HENRY (Fr. Bq.) | Rotterdam | Ymuiden | Arr. Nov. 22. In port Dec. 30 |
| JUNO | Palembang | Miri. | Arr. Dec 28 |
| KANAKUK | Bombay | Singapore | Arr. about Jan. 2 |
| KASBEK | Philadelphia. | Hamburg | L. Dec. 30 |
| KIOWA | Rotterdam | New York | Off the Wight Jan. 2 |
| KIO MARU | Valparaiso | Hong Kong | L. Honolulu Dec. 14 |
| KOMETA | Kustendje | Spezia | Pd. Dard. Dec. 27 |
| KREMLIN | Venice | Kustendje | Arr. Jan 3 |
| KURA | Antwerp | Philadelphia. | Pd. Zeebrugge Dec. 27 |
| LA CAMPINE | Antwerp | New York | Pd. Prawle Pt. Jan. 6 |
| LA FLANDRE | Antwerp | New York | Arr. Dec. 25 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | Antwerp | New York | Arr. Dec. 31. |
| LACKAWANNA* | Manchester | New York | Off Nantucket Jan. 7 |
| LE COQ □ | Tyne | New York | Pd. Dunnet Hd. Jan. 2 |
| LOKI | Philadelphia. | Hamburg | Arr. Dec. 21. In port Jan. 6 |
| LUCELLUM | Bussorah | — | Arr. Malta Jan. 6 |
| LUCERNA | Suez | Algiers | Arr. Port Said Jan. 6 |
| LUCIGEN | Portsmouth | Port Arthur (Tex.) | Pd. Sand Key Jan. 2 |
| LUCILINE □ | Kustendje | Havre Roads | Pd. Ushant Jan. 7 |
| LUMEN | New York | Marseilles | Pd. Gib. Jan. 5 |
| LUTETIAN □ | New York | Cette | L. Dec. 29 |
| LUX □ | Tyne & Vigo | New York | L. Vigo Jan. 2 |
| LUZ BLANCA | Payta | Callao | Arr. ab't Jan. 5 |
| MAKKAVEI | Odessa | Kustendje | Arr. Dec. 19 |
| MANNHEIM | Rotterdam | Philadelphia. | Arr. Jan. 2 |
| MARGARETHA | Cette | Philadelphia. | Arr. Dec. 27 |
| MASCONOMO | Karatsu | San Francisco | Arr. Dec. 13 |
| MASSASOIT | Calcutta | Mi-ike & San Francisco | L. Nov. 27 |
| METEOR | Vladivostock. | Nagasaki | L. Dec 9 |
| MEXICAN PRINCE | Tsingtau | Shanghai | Arr. Dec. 31 |
| MIJDRECHT | Havre | Roumania | L. Jan. 1 |
| MINA BREA | Callao & Talara | San Francisco | Arr. Dec. 22 |
| MIRA | Savona | Philadelphia. | Pd. Sagres Dec. 30 |
| MITRA | Messina | Port Said | L. Jan. 5 |
| MOHAWK* | Tampico | New Orleans | Arr. Dec. 24 |
| MOHICAN | Copenhagen | Port Arthur | 100 m. S.W. of Brow Hd. Dec. 29 |
| MUREX △ | Palembang | Kobe | Arr. Jan. 3 |
| NARRAGANSETT | New York | London | Pd. Lizard Jan. 7 |
| NATICA | Rotterdam | Colombo | L. Aden Dec. 31 |
| NELSON | Puerto Padre | New York | Arr. Dec. 15. In port Dec. 20 |
| NEW YORK* | New York | Rotterdam | Pd. Dover Jan. 6 |
| NIAGARA | Shanghai | Mi-ike | Arr. Dec. 29 |
| NORMAN BRIDGE | Sabine | Tampico | 40 m. S.W. Sabine Bar Dec. 26 |
| OBERON | Victoria, B.C. | Port San Luis | Arr. Dec. 4 |
| OCEAN | Amsterdam | Norfolk, Va. | Arr. Jan. 7 |
| OILFIELD | Philadelphia | Savona | Pd. Gib. Jan. 6 |
| OKLAHOMA | New York | Port Arthur | Abandoned S. of Sandy Hook |
| ORIFLAMME □ | Kustendje | Havre Roads | Pd. Dard. Jan. 1 |
| OSAGE | Rotterdam | New York | Arr. Dec. 20 |
| OTTAWA* | New Orleans. | Sabine | L. P. Eads Dec. 23 |
| OURAL | Kustendje | Alexandria | L. Jan. 3 |
| PALEMBANG | Balek Pappan | Singapore | Arr. Jan. 3 |
| PATELLA △ | Singapore | Gibraltar | L. Colombo Dec. 30 |
| PAUL PAIX | Hull | New York | Arr. Dec. 31 |
| PAULA | Swinemunde. | Hamburg | Arr. Nov. 24. In port Jan. 6 |
| PAWNEE | Hamburg | New York | Pd. Lizard Dec. 28 |
| PECTAN | San Francisco | Antofagasta | Arr. ab't Jan. 7 |
| PENNOIL | Port Arthur. | Dover | L. Norfolk, Va., Jan. 1 |
| PETROLEINE | New York | Bordeaux | Arr. Pauillac Jan. 3 |
| PETROLEUM | Portland | Port Arthur | Pd. Sand Key Dec. 23 |
| PHOEBUS | Callao | San Francisco | Arr. Dec. 23 |
| PINNA □ | New Orleans | Amsterdam | L. Newport News Dec. 30 |
| PONUS | San Francisco | Orient | L. Dec. 13 |
| POTOMAC* | London | New York | Cl. Jan. 6 |
| POWHATAN | Tientsin | San Francisco | Arr. Dec. 23 |
| PROMETHEUS | Talara | San Francisco | Arr. Jan. 3 |
| PRUDENTIA | Trinidad | Guanica | L. Dec. 11 |
| PURELIGHT | Philadelphia. | Dover | Pd. Prawle Point Jan. 5 |
| QUEVILLY (Fr. Bq.) | New York | Rouen | Pd. Havre Jan. 6 |
| RADIOLEINE II. | Rouen | Port Arthur | Arr. Dartmouth Jan. 7 |
| RANELLA | Chinkiang | Singapore | L. Jan. 4 |
| RENDOVA (Br. Bq.) | New York | Alicante & Seville | L. Dec. 1 |
| RICHMOND | New Orleans | San Francisco | Arr. Dec. 18 |
| RION | New York | Hamburg | Pd. Prawle Pt. Jan. 7 |
| ROCK LIGHT □ | Tees | New Orleans | Arr. Fayal Jan. 6 for coal |
| ROMANY △ | Batoum | Colombo | Pd. Perim Jan. 4 |
| ROSALIND | Port Arthur | Sheerness | L. Norfolk, Va., Jan. 5 |
| ROTTERDAM | Amsterdam | New York | Pd. Dover Jan. 3 |
| ROUMANIAN □ | Kustendje | Manchester or Hull | Pd. Dardanelles Jan. 5 |
| ROUMANIAN PRINCE | Port Arthur (Tex.) | — | L. Jan. 5 |
| RUSSIAN PRINCE | Aransas | Tampico | L. Dec. 24 |
| SALAHADJI △ | Singapore | Tarakan | Pd. Balek Pappan Dec. 13 |
| SAMOSET | San Francisco | Mi-ike | L. Dec. 17 |
| SAN ANTONIO | — | — | T. Mexican Coast |
| SAN BERNARDO | — | — | T. Mexican Coast |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | London | Puerto Mexico | 70 m. S.E Land's End Dec. 31 |
| SAN EDUARDO | Kustendje | London | Arr. Jan. 7 |
| SAN FRATERNO | Port Victoria | New York | Arr. Dec 31 |
| SAN GREGORIO | New York | Rotterdam | L. Dec. 30 |
| SAN HILARIO | Tyne | Borneo | Pd. Gib. Jan. 7 |
| SAN JOAQUIN | Tyne | San Francisco | L. Dec. 28 |
| SAN RICARDO | Balek Pappan | — | Pd. Sabang ab't Jan. 7 |
| SAN SILVESTRE | Avonmouth | New York | Arr. Dec. 31 |
| SAN TIRSO | Batoum | Tuxpan | L. St. Thomas Jan. 1 |
| SAN URBANO | Puerto Mexico | Sheerness | L. Norfolk, Va., Dec. 27 |
| SAN VALERIO | Philadelphia. | — | Pd. Sand Key Jan. 5 |
| SANTA MARIA | Hilo | San Francisco | Arr. Dec. 12 |
| SANTA RITA | San Francisco | Victoria, B.C. | Arr. Dec. 7 |
| SATANTA | Calcutta | San Francisco | L. Singapore Dec. 11 |
| SAXOLEINE | Tyne | New York | Arr. Dec. 26 |
| SEQUOYA | San Francisco | Moji | L. Dec. 21 |
| SERVIAN □ | Port Arthur | Liverpool | Arr. Jan. 6 |
| SHABONEE | New York | Calcutta | Arr. ab't Dec. 29 |
| SILVIA | Portsmouth | Tyne | Arr. Jan. 7 |
| SIOUX | Buenos Aires | San Francisco | L. Dec. 28 |
| SIRIUS (Ger.) | Hamburg | New York | In wireless com. Dec. 28 |
| SOCONY | Port Arthur | New York | L. Dec. 14 |
| SOYO MARU | Thames Haven | Persian Gulf. | Pd. Aden Dec. 25 |
| SPLENDOR | Messina | — | Pd. Gib. Jan. 6 |
| STAG | London & Milford | Antilla | Arr. Dec. 27 |
| STANDARD | Kustendje | — | L. Port Said Jan. 4 |
| STROMBUS △ | Port Arthur | Sheerness | L. Norfolk, Va., Dec. 31 |
| SULTAN VAN LANGKAT △ | Kurrachee | Abadan | L. Dec. 31 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4 |
| SURAM | Philadelphia. | Copenhagen | Pd. Dunnet Hd. Jan. 6 |
| SUWANEE* | Sunderland | New York | Pd. Lizard Jan, 3 |
| SVIET | Rouen | Batoum | L. Plymouth Dec. 28. |
| TASCALUSAH | Tees | New York | Arr. Jan. 7 |
| TATARRAX | Clyde | New York | 16 m. W. Malin Head Jan. 4 |
| TEAKWOOD | New York | Portland | Arr. Jan. 5 |
| TECUMSOH | Tampico | New York | Arr. Dec. 27 |
| TELENE △ | Thames Haven | Tyne | Arr, Jan. 5. In port Jan. 6 |
| TEREK | New Orleans. | London | L. Jan. 2 |
| TEXAS | Port Arthur | Marcus Hook | Pd. Sand Key Dec. 22 |
| TIFLIS | Amsterdam | Naples | Pd. Ushant Jan. 6 |
| TONAWANDA* | London | Tees | 30 m. E.S.E. of Caister Jan. 7 |
| TRINCULO | — | — | Arr. Vancouver Dec. 23 |
| TRINIDADIAN | Tampa | New York | Arr. Dec. 9. In port Dec. 20 |
| TRITON | Baton Rouge | Hamburg | Arr. Dec. 27. In port Jan. 6 |
| TROCAS △ | Balek Pappan | Singapore | Arr. Jan. 3 |
| TURBO | Rangoon | Port Said | Pd. Perim Jan. 7 |
| UNCAS | Mi-ike | San Francisco | Arr. Dec. 16 |
| VEDRA | Philadelphia. | Bremerhaven | L. Dec. 30 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Philadelphia. | Spoken Dec. 19 38 N. 19 W. |
| VITRUVIA | Ardrossan | New York | 110 m. W. Malin Head Dec. 31 |
| VOLCANUS | Palembang | Singapore | Arr. Dec. 24 |
| VOLUTE △ | Balek Pappan | Hong Kong | Arr. Dec. 21 |
| WABASHA | San Francisco | Tientsin | L. Dec. 13 |
| WANETA | Tampico | Tampa | L. Dec. 24 |
| WAPELLO | Manchester | New York | 50 m. S.W. Brow Head Jan. 1 |
| WASHINGTON | Kustendje | Valle | Pd. Gib. Jan. 4 |
| WEEHAWKEN | London | Cienfuegos | Pd. Dover Jan. 7 |
| WIELDRECHT | Rotterdam | Vlaardingen | L. Jan. 5 |
| WILLIAM F. HERRIN | San Francisco | Monterey | L. Dec. 10. |
| WILLKOMMEN | Philadelphia & Christiania | Hamburg | Arr. Jan. 3 |
| WINAMAC | New York | Bombay | Arr. ab't Jan. 7 |
| WOTAN | New York | Hamburg | In wireless com. Jan. 5 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* Review.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Thames Haven Oil Wharves.

The remarkable expansion which the consumption of petroleum products in this country has witnessed during recent years is reflected in a marked degree in the continued prosperity of the oil storages of the London and Thames Oil Wharves, Ltd. To-day these public storages are the largest in the world, and their steady and consistent growth from comparatively small beginnings sixteen years ago speaks eloquently for the care and foresight exercised in their control by the managerial staff. It may not be generally known that last year, almost twenty-five per cent. of the total quantities of petroleum products imported into the United Kingdom were received at Thames Haven. It is, however, in regard to the storage of bulk benzine that the most substantial progress has been made during the past few years. Seven years ago the company dealt with approximately 7,000 tons of motor spirit; for the year just closed the total in this department amounted to no less than 230,000 tons. No wonder extension continues to be the order of the day at the Thames Haven storages.

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### Canada and Liquid Fuel Supplies.

That the British Admiralty is looking to the Dominion of Canada for a portion of its liquid fuel supplies of the future is seen from the fact that during the past few days an important change has been decided upon by the Canadian Government, which, in view of the rapidly extending use of liquid fuel for naval needs, is of vital international importance. Under the new regulations in every oil lease issued by the Department of the Interior a clause is to be inserted reserving the use of any wells for the British Admiralty in time of war if needed. One of the primary intentions of the new regulations is to develop the Canadian petroleum industry, particularly in view of the recent activity in the Alberta fields. To our mind, however, while an increase in Canada's crude oil output is devoutly to be desired, the commercial development of the enormous shale wealth of the Dominion is the direction in which the British Admiralty can only hope to make certain of substantial quantities of liquid fuel for power-raising purposes, and it is little less than remarkable that these bounteous oil shales have been allowed to lie dormant so long, while other less promising oil propositions have been energetically pushed forward.

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### Developments in America may Lead to a Drop in Prices.

The position of affairs in the American Mid-continental fields is to-day such that a decline in prices of crude oil is more than likely. For a long time past the greatest activity has prevailed in these fields, particularly in the case of the Oklahoma territories, where operators have taken full advantage of the highly favourable market prices by adopting a policy of extreme energy in drilling as many new wells as possible, and thus appreciably increasing the output of crude oil. The crucial point has now been reached when if further increase in output takes place, a reaction in crude oil prices will in all probability set in. The matter has been discussed by many of the principal operators, the result being that drilling operations are to a large extent now being curtailed in order that crude prices may not suffer. The Prairie Oil and Gas Company—the Standard's transportation branch—has issued a timely warning pointing out that though they have succeeded in finding new markets for some of the increasing production, they are still left with a daily over-production of 14,000 barrels of oil which, inasmuch as there is at present no outlet for it, must go into storage. During the past few months this company has spent several million dollars in increasing the capacity of its pipe-lines and building new ones.

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### New Zealand Oil Prospects.

It is not too much to say that the future for Colonial oil has never been more promising than to-day. Since an active search for oil wealth was commenced in New Zealand, progress has been anything but slow, although the innumerable difficulties encountered by all pioneer oil companies have been met with. We have at times heard quite a deal of the wonderful forward steps made both in Nigeria, Newfoundland, and even Trinidad, in regard to establishing a petroleum industry upon commercial lines, yet those who have studied the position of New Zealand in this respect, must admit that its oil enthusiasts have done more in the comparatively short time which has elapsed since they took up the task than has been accomplished in any of the other countries referred to. Since the formation of the Taranaki (N.Z.) Oil Wells, Ltd., less than two years ago, not only has a most up-to-date refinery been built, but its products are to-day being marketed in various parts of the Dominion, while as to crude oil production, the drilling work is in a highly promising condition. The policy laid down by Lord Ranfurly to encourage the formation of local companies to operate in the New Plymouth field has resulted in several concerns being formed, and the first of these local companies to commence serious drilling operations has already struck oil in its first well, which, it is satisfactory to add, is close to the wells of the Taranaki (N.Z.) Oil Wells, Ltd., and the Bonithon and Phoenix companies. The impetus which will now be given to oil developments in New Zealand is immense, since it is anticipated that several other wells will reach the same oil stratum in the course of a few weeks.

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## RUSSIAN NEW YEAR CELEBRATION IN LONDON.

THE importance of close commercial and political relations between Great Britain and the Russian Empire were emphasised by several speakers on Wednesday, when a large and influential company met at dinner at the Restaurant Frascati, W., under the chairmanship of Baron Heyking (the Russian consul-general in London), to celebrate the incoming of 1914—Wednesday being the Russian New Year's day.

In proposing the toast of the guests, with which he coupled the names of Sir Albert Rollitt and Mr. Charles E. Musgrave (Secretary of the London Chamber of Commerce), Baron Heyking appropriately referred to the closer bonds of union which had during recent times sprung up between the peoples of this country and those of the Russian Empire. There was no doubt that to-day Russia and its people were held in the highest esteem by Englishmen, and he was convinced that the closer the knot of friendship was tied, the more beneficial it would be both for Russia and England, for the opportunities for commercial relations between the two Empires were almost without limit.

In the course of his reply Sir Albert Rollitt echoed the sentiments of Baron Heyking. Far back in the sixteenth century the Russian Company was one of the first organisations in this country formed for the purpose of developing the trade relations between the two Empires, and to-day they were all still imbued with the necessity for still closer relations and still greater trade expansions. Russia, with its immense wealth awaiting development, offered unique opportunities to the English capitalist, and great as had so far been the interest of the British capitalist in the Russian Empire, he trusted that at no distant date it would be immeasurably greater. Russia's national resources were immense, her credit was high, and thus there was no reason why the bonds of friendship and commercial intercourse should not be encouraged in every possible direction, for if that were done it would be to the lasting good of both Empires.

Dr. P. Dvorkovitz, in proposing a vote of thanks to Baron Heyking for having presided over the gathering, extended the thanks of the company to their chairman for the untiring efforts he had put forward in an endeavour, and a very successful endeavour, to strengthen the Anglo-Russian friendship.

FOR SALE.

BELT-DRIVEN ROTARY SHOT DRILLING MACHINE, to bore holes 1,000 ft. deep, commencing at 8 ins. diameter. Quite new, and will be sold cheap.—Write "SHOT DRILL," c/o J. W. Vickers & Co., Ltd., 5, Nicholas Lane, E.C.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 10th was 123,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended January 11th was 303,515 poods, or about 4,895 tons. The total production for the year from January 14th to January 11th was 13,788,160 poods, or about 222,390 tons. The total production for the corresponding period last year was 16,402,798 poods, or about 264,561 tons. Price of crude oil at Baku is now 36½ copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended December 27th was 18,620 poods, or 300 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended January 11th was 108,300 poods, or 1,746 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 10th was 122,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended January 12th was 23,628 poods (381 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended January 10th was 5,800 poods (94 tons).

BRITISH MAIKOP OIL COMPANY, LTD.— Production for week ended January 11th was 15,815 poods, or 255 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended January 10th, 99,900 poods, or 1,611 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The latest production for week ended January 13th was 391,393 poods, or 6,313 tons. Corresponding period last year, 1,610 tons.

BIBI-EIBAT PETROLEUM COMPANY, LTD.—Production for the week ended January 11th was 102,733 poods, or 1,657 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended January 10th was 6,000 poods, or 97 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended January 10th was 14,893 poods (240 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended January 10th was 1,030 poods (17 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended January 10th was 2,600 poods, or 42 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
LONDON, E.C.
ESTABLISHED 1856.
Telephone: City 8840 (4 lines).

# OUR PETROLEUM IMPORT TRADE DURING 1913.

## THE SHIPMENTS INTO VARIOUS PORTS.

ALTHOUGH we have already published the details enumerating the various quantities of petroleum products imported into the United Kingdom during the past twelve months, the following table will be of considerable interest as showing the various ports into which the numerous shipments of petroleum products were made :

| PORT. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | 1,600 | 27,690 | — | — | 30,000 | — | — |
| Barrow ... ... ... | 1,717,580 | — | — | — | 17,110,360 | 1,023,177 | — |
| Belfast ... ... ... | 6,365,230 | 57,110 | — | 1,992,060 | — | 671,210 | — |
| Boston ... ... ... | — | 5,860 | — | — | — | — | — |
| Bristol ... ... ... | 25,301,870 | 2,660,450 | 4,400 | 4,638,540 | 6,938,500 | 952,620 | 168,360 |
| Cardiff ... ... ... | — | 27,380 | — | — | — | — | 510 |
| Cork ... ... ... | 140 | 2,930 | — | 657,500 | — | — | — |
| Dublin .. ... ... | 7,249,610 | 64,770 | — | 491,220 | — | — | — |
| Dundee ... ... ... | 1,680 | 14,610 | — | — | — | — | — |
| Glasgow ... ... ... | 40,960 | 3,813,753 | — | — | — | — | 79,470 |
| Gloucester ... ... ... | — | 27,210 | — | — | — | — | — |
| Goole ... ... ... | — | 15,600 | — | — | — | — | — |
| Grangemouth ... .. | 362,850 | 84,190 | — | — | — | 1,301,800 | — |
| Granton ... ... ... | — | — | — | — | 4,317,000 | — | — |
| Grimsby ... ... ... | — | 36,490 | — | — | — | — | — |
| Hartlepool ... ... ... | — | 2,320 | — | — | — | — | — |
| Harwich ... ... ... | — | 67,630 | — | — | — | — | — |
| Hull ... ... ... | 11,486,450 | 2,609,840 | — | — | 59,950 | — | — |
| Leith ... ... ... | 154,920 | 658,000 | — | — | — | — | 14,000 |
| Limerick ... ... ... | 2,741,960 | 1,280 | — | — | — | — | — |
| Liverpool ... ... | 7,321,963 | 17,565,084 | 793,925 | 8,156,630 | 2,679,760 | — | 546,935 |
| London ... ... ... | 69,701,820 | 24,701,151 | 50,382 | 39,844,030 | 71,508,510 | 19,340,660 | 1,170 370 |
| Manchester ... ... | 17,721.560 | 12,951,650 | 1,550 | 8,510,440 | — | 5,378,920 | 84,680 |
| Middlesborough ... ... | — | 22,940 | — | — | — | — | — |
| Newcastle ... ... ... | 13,600 | 158,020 | — | — | — | — | 200 |
| Newport ... ... ... | — | 12,700 | — | — | — | — | — |
| Plymouth ... ... ... | 360,280 | 365,190 | — | 895,700 | — | 192,500 | — |
| Portsmouth ... .. | — | 360 | — | — | — | — | — |
| Southampton ... ... | 2,167,150 | 6,410 | — | — | — | — | — |
| South Shields ... ... | — | 80 | — | — | — | — | — |
| Stockton ... ... ... | — | — | — | — | — | — | 310 |
| Sunderland ... ... | 4,183,400 | — | — | 211,810 | — | 2,308,850 | — |
| Swansea ... ... ... | — | 104,350 | — | — | — | — | — |
| Totals ... ... | 156,894,623 | 65,705,048 | 850,257 | 65,397,930 | 102,644,080 | 31,169,737 | 2,064,835 |

A study of the above details shows that of the total of over 420,000,000 gallons imported into the various ports of the Kingdom during the past twelve months, over one-half of this amount came into London. and the greater bulk of this immense quantity was stored at Thames Haven. Altogether, during 1913 London imported approximately 230,000,000 gallons of petroleum products, and of this total motor spirit formed over 70,000,000 gallons, the quantity being slightly above that of illuminating oil received in the Thames for the twelve months. Thus two-thirds of our total trade in motor spirit to-day comes to Thames Haven. The benzine storages at Barrow last year received 17,000,000 gallons of spirit, while Bristol took nearly 7,000,000 gallons, this latter amount being about 1,000,000 gallons in excess of the quantity delivered during 1912.

In spite of the restrictions placed upon Manchester by reason of the fact that motor spirit cannot be landed up the Ship Canal, Manchester is gradually strengthening her hold as being the second chief oil port of the Kingdom, for last year she imported nearly 45,000,000 gallons of petroleum products. About 18,000,000 gallons of illuminating oil were received by Manchester for 1913, which is 1,000,000 gallons more than for the preceding twelve months, while in regard to lubricating oil, this branch of the trade likewise increased during the year to the extent of 500.000 gallons advance upon the figures of 1912, for 13,000,000 gallons of lubricants were imported. But in its consignments of liquid fuel Manchester is going ahead very rapidly, its imports last year under this head being over 150 per cent. greater than in 1912.

Liverpool's total for the year was practically a set-off with that for 1912, the figures for the twelve months being just over 37,000,000 gallons. The Mersey city, therefore, stands fourth as a petroleum distributing centre, for Bristol takes the third place with a year's oil trade of over 40,000,000 gallons. So far as illuminating oil is concerned, Bristol stands as the second important port of the Kingdom, coming but next to London.

# THE BAICOI-CONSTANZA PIPELINE.

## EXPECTED COMPLETION NEXT AUTUMN.

THE following article, appearing in *Bulletin des Chemins de fer Roumains*, is from the pen of the Engineer E. Samitca, the Chief of the State Service of the Pipeline, and one of the most eminent engineers of the Roumanian railways, and will be perused with great interest. Mr. E. Samitca has made a thorough study in view of the projects submitted to the Ministry for the construction of the Baicoi-Constanza pipeline, and is therefore in a position to speak with authority on this subject.

By the law promulgated during March, 1912, for the construction of pipelines necessary for the transport of crude oil and kerosene from Baicoi to Constanza, one pipeline for crude oil and two for kerosene were provided for. In view of the ascending movement of the production of crude oil in Roumania and the exportation of products, especially residuals, the quantities of crude oil to be carried through the pipeline were calculated at 1,000,000 tons a year to be transported to Constanza in order to be treated there, this being considered a sufficient provision for several years. As regards kerosene, the annual quantity to be transported through the pipelines is calculated at 340,000 tons. The products carried through the pipelines will be received at Baicoi and Ploesti, and there will also be a receiving station at Buzeu for crude oil only. From Baicoi the products will go by natural fall to Ploesti, where by means of a pumping installation, they will be transferred to the Pallas station at Constanza. Crude oil will go to the intermediary station, Buzeu, from where it will be re-pumped to the next intermediary station, Hagieni, and from there to Constanza. At Constanza the products will be loaded aboard the steamers by means of gravitation.

Taking into consideration the viscosities of the liquids to be transported, and the pressure in the pipes, which for kerosene will be of 52 atmospheres, and for crude oil 32 atmospheres, it has been considered necessary to have the pipes of an interior diameter of five inches for kerosene and nine inches for crude oil up to Buzeu, and ten inches from there to Pallas. Of course, with lower viscosities the transport will be considerably facilitated. The pipes are made of steel and have a thickness of about 7 mm. for kerosene and 9½ mm. for crude oil, and will be laid under the ground at a depth of about 60 to 70 cm. for kerosene and 140 cm. for crude oil.

In order to simplify as far as possible the operations of the pipelines, the liquids to be transported through them will be divided into a limited number of types, viz. :—Crude oil into two types, paraffinous and non-paraffinous, and each of these two again into two classes according to the characteristic district they go through. Besides these four classes there is another class of individual types for quantities exceeding 5,000 tons. For kerosene there will be only two types, first and second. All the types of crude oil will be transported through the one crude oil pipeline, while the two types of kerosene will be transported each through a separate pipeline.

For the reception of all these oils there will be a total of 67 tanks, viz., 34 for crude oil of a capacity of 1,600 to 6,000 m³. and 20 tanks for kerosene of 1,600 to 3,000 m³. There will also be another 13 tanks for kerosene distillate of a capacity of 1,600 to 6,000 m³. The total capacity of all these tanks will be 164,600 m³., and the cost of their erection about 3,000,000 frs.

The system of pumps selected is triplex with connections with Diesel motors. The pumps are of sufficient capacity to provide for any emergency and to secure smooth working of the pipelines.

There will be three pumps for kerosene at Ploesti, with a capacity of 450 litres per minute at a pressure of 640 m., and each of them will be directly coupled to a Diesel motor of 75 h.p., while for crude oil there will be three pumps of a capacity of 1,100 litres per minute, pressure 380 m., coupled with three Diesel motors of 140 h.p. At Buzeu and Hagieni there will be three pumps in each place identical with those at Ploesti. Provision has also been made in order to vary the pumping capacity according to the changes in the viscosities of the liquids.

At each station there will be an electric installation to provide the necessary lighting power, and also for the pumping of water, etc. Each station will also have complete workshops in order to carry out necessary repairs and to keep all machinery in perfect order. The exhaust gases from the Diesel motors will be utilised for heating the crude oil in winter in order to render it more fluid.

Similar installations of less importance will also be erected at Baicoi, Cernavoda and Pallas. At all stations buildings will be erected for sheltering all machinery, and also laboratories, offices and dwellings for the staff and workmen. The cost of the buildings will exceed 1,000,000 francs. In places where the pipeline will cross waterways, it will be affixed to the railway bridges by means of special metal constructions, and in order to preserve the crude oil from freezing the tubes will be isolated. A system of telegraph wires and telephones will secure permanent communication between all the stations, and with the fields as well as with the central administration at Bucarest. All possible precautions will be taken against fire dangers by the erection of reservoirs at various stages along the route of the lines, as well as the installation of water pipes, lightning conductors, etc.

The general arrangement of the transport will be a combination of the American and Russian systems adapted to the special needs of the Roumanian petroleum industry, and there will be two modes, viz., individual transport and collective transport, the first of which will only be for very large quantities of products.

The total cost of the pipelines when completed will be about 24,000,000 francs. At present all the pipes are on the spot, the motors, pumps and tanks are being constructed, and the foundations for the buildings have been started, it being estimated that all necessary work will be completed next autumn.

(*To be concluded*).

# CONSTRUCTING OIL PIPELINES IN AMERICA.

## EXCLUSIVE PHOTOGRAPHS.

THE three photographs here reproduced give an excellent idea of the up-to-date methods now adopted for laying pipelines in the United States for transporting oil. As is known, the States is the home of oil pipelines, some tens of thousands of miles being regularly in use to-day, some lines being several hundred miles long. A large number of these have been laid consequent upon the bringing in of new pools, where no adequate facilities for storage have been installed, and as a result they have been put down in a remarkably quick time, due to the ingenious devices brought into use.

In the first photograph is seen a machine excavator which is said to be the last word in mechanical construction. The machine, which is driven by a 30-horse power gasoline motor, excavates the earth to the required depth for the pipeline and deposits it on the side of the track. Simultaneously with performing its excavating work, the machine moves along at a speed of from two to ten feet per minute, according to the character of the ground. Here the machine is seen with its enormous digging wheel raised above ground so as to permit of its passage to the scene of operations, while in the next picture the machine is seen at work.

In the third illustration a close view of the pipeline is seen in construction, the various sections of the pipe being bolted-up after the "Dresser" rubber joint has been fixed to the end of the pipes.

## IMPORTS OF PETROLEUM PRODUCTS INTO ITALY.

### Statistics for the Nine Months.

THE imports of petroleum products into Italy during the nine months amounted to 191,843 tons, including :—

| | Tons. |
|---|---|
| Kerosene | 72,749 |
| Benzine | 22,636 |
| Lubricating oils | 42,257 |
| Residuals | 34,573 |
| Paraffin | 17,357 |
| Bitumen | 3,493 |
| Other products | 2,271 |

## THE DALMENY OIL COMPANY.

THE report of this company states that at the close of last year's account there was £1,361 at the debit of profit and loss account. The result of the working during the past year has been a profit of £4,461 (before deducting depreciation), and after extinguishing the debit balance, the result is £3,100, which the directors have carried to depreciation. Old contracts continued during a large part of the year, while wages and other expenses increased. The operations for opening up the extended mineral area leased from Lord Rosebery were continued. This extended area brings into the leasehold the seams on the north of a great fault, involving the opening up of a new field with different minerals. This fault is a displacement of the strata of about 200 fathoms separating the seams originally worked by the company from other seams which the company are now opening up. The Forth Bridge Railway Company gave notices requiring the company not to work within certain areas in which the company had driven mines. These notices were given under the statutory provisions enabling the railway company to require minerals to be left unworked when the railway company deem this necessary for the protection of their railway and works. The embargo on the area of shale to which these notices apply has affected the working and operations of the company, as well as the loss of shale, which was practically won and ready for output. The claim of the company for the loss of the shale and for any increased expense in working the adjoining areas is under consideration.

## TEST WELLS IN THE PHILIPPINE ISLANDS.

THE American Bureau of Foreign and Domestic Commerce reports from a correspondent in Manila upon test borings for oil in one of the large provinces of the Philippine Islands. It appears that the Government experts who have been investigating the Bondoc Peninsula in Tayabas province have recommended test borings in five different localities. The different propositions as advanced by these experts are as under :—

The presence of oil in the Maglihi anticline in the south-eastern part of the peninsula, near Mount Morabi, is proved by a seep at Banco, its geological structure being similar to some productive Californian fields. Water and wood are available, but the place is comparatively inaccessible, being about 3·7 miles from the coast and approximately 1,000 ft. high.

Oil seeps are present on the Maglihi anticline in the Bahay valley, where quantities of oil have been obtained from two shallow wells at Bahay. It is two miles from the coast, is approached by the old roadway along the Bahay river, and has plenty of wood and water.

Oil is shown by a marked seep at Balinsag on the central anticline. The spot is difficult to approach, being over six miles from the coast, with intervening elevations of 1,000 ft. There is an abundance of wood and water.

A mile inland from the mouth of the Ayoni river, on the west coast, is the Ayoni anticline, regarded in some respects as the most favourable of any place for oil, but there are no oil seeps along the crest. The place is easily reached and has plenty of water and wood.

There is a gas seep and some oil on the Malipa Creek, near Cabongahan. The spot is fairly accessible and wood and water are available.

◆

## BAKU PETROLEUM PRODUCTION DURING NOVEMBER.

THE production of petroleum on the Baku oilfields during November amounted to 32.144,830 poods, of which 7,423,430 poods were obtained at Bibi-Eybat and 24,721,400 poods on the old areas. The production from hand-dug wells amounted to 850,000 poods. The production of the principal firms was as under:—

| | Poods. |
|---|---|
| Nobel Bros. ... ... ... ... | 4,440,570 |
| Caspian and Black Sea Company ... | 2,053,080 |
| Baku Petroleum Company ... ... | 1,710,721 |
| Mantascheff & Co. ... ... ... | 1,563,050 |
| Caspian Society ... ... ... ... | 1,291,010 |
| Mirzoeff Bros. ... ... ... ... | 1,148.850 |
| Moscow Caucasian Society ... ... | 1,090,000 |
| Russian Nafta Society ... ... ... | 946,000 |
| Runo ... ... ... ... ... | 886,156 |
| Zoubaloff ... ... ... ... ... | 817,000 |
| Pitoeff & Co. ... ... ... ... | 787,900 |
| Miloff and Tairoff Society ... ... | 741 300 |
| Kavkaz Company ... ... ... | 556,850 |
| Aramazd Company ... ... ... | 541,200 |
| Ter-Akopoff Company ... ... ... | 530.600 |
| Born ... ... ... ... ... | 512,390 |
| Assodullaeff .. ... ... ... | 509,206 |
| Rilski Trustees ... ... ... ... | 502,000 |

**The Russian Kuban Industrial & Petroleum Company,**
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# MAIKOP MIDLAND OILFIELDS, LTD.

## DEVELOPMENTS AT KRIMSKAYA.

The third ordinary general meeting of the Maikop Midland Oilfields, Ltd., was held on Tuesday, at Winchester House, Old Broad Street, E.C., Mr. George Tweedy (chairman and managing director) presiding.

The Secretary (Mr. G. E. A. Browne) having read the notice convening the meeting and the report of the auditors,

The Chairman said: Gentlemen, you have all received copies of the directors' report and accounts; therefore I propose, with your approval, that the same be taken as read. Dealing first of all with the balance-sheet, you will note that 50,000 preferred ordinary shares of 10s. each were issued last year, in accordance with the arrangements entered into for the purpose of our Krimskaya property. The subscription of these shares at par was guaranteed on condition that the purchase was completed before December 31st, 1912. This was effected by that date, and the proceeds of the issue were applied in paying for this property and the work done on it. You will remember that the shareholders at the last general meeting sanctioned the whole of these arrangements. The calls outstanding at the date of the balance-sheet amounted to £3,432, but the greater part of this has since been received. Sundry creditors in London and Russia amount to £29,997. This item, which is made up of amounts due for materials supplied and sundry advances made to the company, has now been considerably reduced. On the other side of the balance-sheet, "Additions to leasehold lands, £10,000," is the purchase price of the Krimskaya property. The further capital expenditure at Krimskaya, £21,368, includes the amount which had to be paid to the vendors for work done on the property previous to our taking it over. The item £865 represents the expenditure on work necessary to protect our otvods in the Maikop district. General expenditure in Russia during the year amounted to only £2,262, while in regard to the London expenses the sum of £2,434 is on account of interest charges on the sundry advances to which I have just referred. Stocks of crude oil at the date of the balance-sheet stood at £1,394, while sundry debtors and cash in hand amounted to £3,275 and £2,183 respectively. I do not think there is anything else in the balance-sheet which calls for special comment on my part.

I will now turn to the practical, and, to me, the more interesting side of the business. I wish, first of all, to remove a mistaken impression that appears to have gained ground in some quarters that as this company is at present actively operating on the Krimskaya field only the directors apparently have given up all hope of success at Maikop. This is not the case; otherwise we would not spend money in doing the work required to protect our leases at Maikop. Having discovered by exploratory work that oil on our Maikop plots can only be reached at considerable depth, and not having the capital to justify the expenditure involved in deep drilling on our own account, we have, in association with other companies, subscribed a portion of the capital of the Maikop Deep Drilling Company. That company has already proved that oil exists on plot 108 at a depth of 2,250 ft., and a group of companies associated with the Anglo-Maikop Corporation is now drilling a well on plot 120 with the special object of tracing the direction of the source discovered on plot 108. You will see by the plan that 120 is nearer our plots than 108, and if the well on 120, now at 1,450 ft., is successful, the same group will probably proceed to drill on plots 132 and 146. The latter, you will see, is separated from our Nos. 165 and 166 by only one plot. We are, therefore, waiting and watching events before committing ourselves to active developments at Maikop, and this policy I think you will readily approve.

Now, as to Krimskaya, where our operations are active—I might say very active—it gives me much pleasure to report a great improvement in the position and prospects since I last had the pleasure of meeting you. Many of our expectations at that date have been, and are gradually being, realised, and after I have given you some details of the position as I found it on my recent visit to the property, I feel sure you will concur in my opinion that the shareholders will be amply rewarded for their patience. This forbearance on their part, I must say, has not only been exemplary, but helpful in the best sense to the directors and managers. I may add that all concerned on the other side show the keenest interest in the welfare of this company. You will remember at the last general meeting I dwelt at some length on the water difficulties and that I made what might have appeared a sanguine statement, namely, that we could overcome these troubles. I have repeatedly pointed out at other meetings that the water question is one of the greatest problems in oil winning, and therefore I am all the more pleased to be able to tell you that at Krimskaya we have succeeded, although it has taken a much longer time than I anticipated. It is not easy for those who have never been on an oilfield to form an idea of the enormous difficulties with which a pioneer company has to contend. In recent speeches of some of the greatest oil men of the day this point has been strongly emphasised. One company I particularly call to mind has been working for twelve years in a rich oilfield, and it has only recently come into the front rank as a producer. Please understand I do not mean for one moment to suggest that it will take us as long to get into a prosperous position, because in our case the bulk of the exploration work has already been done, and even on the present production we are making a profit. While it is true the output at the present moment is less than in August last, this is easily accounted for. You will remember, in the circular issued at that time, it was stated that the depth at which we were getting the oil in well No. 4 was not the source at which we were aiming, and that, owing to the strong pressure of gas, it was not possible to continue the drilling. (Well No. 4, by the by, is the first of our large diameter wells, and so far it has been our principal producer.) The gas, however, is now gradually decreasing, and as soon as a boring rig is available the well will be completed.

I will now try to give you a concise statement as to the position of each well. Nos. 1, 2, and 3, you will remember, were exploratory wells. Nos. 1 and 2 finished with casing of small diameter, very much damaged; therefore, these two wells are of little value as producers. They have, however, served a useful purpose in proving the existence of at least three distinct oil sources, and even the present small production from them is profitable. Well No. 3 reached the heavy oil source in February last year, and produced until we stopped it in October to repair the damaged casing and carry the well to what is looked upon at the present time as the main oil source. This we hope to reach with a 7-in. column. I am pleased to say we received a telegram yesterday, reading as follows: "Well No. 3 drilling through damaged 8-in. column; successful. Expect to reach light oil in two weeks." Well No. 4 reached the same source as No. 3—that is, the heavy oil source—with a 10½-in. column, which, being free and in good order, we hope to carry down to the main oil source. Well No. 5 was located on another part of the field, to test the value of that section, where we know the depth of the oil horizon must be greater than on the other side. Judging by the formation at the present depth (1,860 ft.), the prospects are favourable. Wells Nos. 6 and 7, like No. 4, are located in positions from which we may without much risk anticipate an excellent output. Provided the work is not delayed by unforeseen circumstances, the first of these two wells should be in production next month. As to Nos. 8 and 9, derricks are erected and everything is ready for drilling. To summarise the position, we have four wells which should reach the proven main oil source at an early date. Two wells are ready to follow these as soon as boring rigs are free. In addition, there is the exploratory well, which, if successful, will add at least 50 per cent. to our proven area. From these facts you will gather that I am myself firmly convinced of the success of the company, and if any shareholder wishes to ascertain how far I am backing my own opinion, I think a reference to the share register will satisfy him. If there are any other points, either in connection with the accounts or the work on the field, on which shareholders require further information, I shall try to answer them as far as lies in my power. I now beg to move, "That the balance-sheet, as at July 13th, 1913, and the report of the directors be adopted," and will ask Mr. Peake to second the resolution.

Mr. C. N. Peake seconded the motion.

There being no questions asked, the motion was put to the meeting and carried unanimously.

The Chairman next proposed the re-election of Mr. C. N. Peake, the retiring director, which was seconded by the Hon. George Nicholas de Yarburgh-Bateson, J.P., and unanimously agreed to.

Messrs. Harmood, Banner & Son were re-appointed auditors, and a vote of thanks to the chairman closed the meeting.

## THE RECENT LARGE DEAL IN CALIFORNIAN OIL LANDS.

### Mr. Andrew Weir inspects the Properties.

MR. ANDREW WEIR, of Messrs. Andrew Weir & Co., of Bury Street, London, E.C., the well-known shipowners, and head of the syndicate recently formed to acquire the General Petroleum Company of California and possibly the Union Oil Company, is, at present, in Southern California, accompanied by Mr. R. Tilden Smith, who represents the financial houses interested in the floatation of the enterprise.

The visit of these gentlemen to California, says the Californian *Oil Age*, is announced to be for the purpose of making a thorough investigation of the properties and other details of the Union Oil Company, an option on control of which is held by the General Petroleum Company. As this option will pass to the syndicate with the controlling interest in the General Petroleum Company, under the terms of the syndicate agreement now being completed, the financiers backing the project desire to become thoroughly familiar with the financial and physical condition of the Union before taking definite action looking to the acquisition of this company.

Conferences have been held between the English representatives of the syndicate and the Union officials, and some announcement of the plans may shortly be made.

As announced recently by Captain Barneson, general manager of the General Petroleum Company, if all conditions of the Union option and properties appeal favourably to the English syndicate, a total of about $75,000,000 will be invested in these two Californian companies. That the acquisition of the Union Oil Company by the syndicate will result in enormous benefit to the Californian oil industry can hardly be doubted, in view of Captain Barneson's intimation that the shipping interests represented by Messrs. Weir are amply capable of absorbing the entire production of both the Union and General Petroleum Companies after the Panama Canal has been opened to commerce. If the oil should be diverted to this new market, it would take a large percentage of the present production out of competition in the world's markets, with resultant advancing prices and a period of unprecedented drilling activity.

◆

## OCTOBER IMPORTS OF PETROLEUM PRODUCTS INTO GERMANY.

THE imports of petroleum products into Germany during October were as follows :—

| From | Kerosene. Tons. | Benzine. Tons. | Lubricating Oil. Tons. | Solar Oil. Tons. |
|---|---|---|---|---|
| Austria ... ... | 7,190 | 2,373 | 4,639 | 4,399 |
| Russia ... ... | 379 | 3,889 | 6,313 | — |
| Roumania ... | 2,672 | 4,124 | 734 | — |
| United States ... | 53,134 | 3,608 | 6,400 | 673 |
| Dutch Indies ... | — | 3,308 | — | — |
| Other countries.. | 16 | 329 | 243 | 128 |
| Totals ... | 63,391 | 17,861 | 18,329 | 5,200 |

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | $\frac{9}{16}$-$\frac{5}{8}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-1$\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 92-97 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/0-5/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 7/0-8/0 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 29/6-30/6 |
| North Caucasian Oilfields — | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 33/3-33/9 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}$-$\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1.158.840 | £1 | 20/0-21/0 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{1}{4}$-1$\frac{3}{8}$xd |
| ,, ,, Ord... | 690,000 | fully pd. | 14/0-15/0 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047,610 | £1 | 4$\frac{27}{32}$-4$\frac{29}{32}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{4}$-10$\frac{1}{2}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 20/6-21/0 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 697 | 700 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,700 | 18,800 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 990 |
| Russian Naphtha Society ... ... | 100 | 251 | 253 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 35/9 |
| ,, 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1.100,000 | £1 | 77/9 |
| ,, Pref. ... ... ... | 250,000 | £1 | 26/3 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| ,, 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/4$\frac{1}{2}$ |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 37/9 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 35/0 |
| ,, Pref. (£1 paid) ... | 100,000 | £1 | 21/4$\frac{1}{2}$ |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/4$\frac{1}{2}$ |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 5$\frac{3}{8}$ |
| ,, 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 9/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 72/3 |
| ,, "B" Deb. ... | 160,000 | £100 | £153 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| ,, ,, ,, ,, Pref. ... | ,, | 181 |
| Royal Dutch Petroleum Co. ... ... ... | ,, | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | ,, | 234 |
| Perlak Petroleum Maatschappij ... ... | ,, | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | ,, | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | ,, | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | ,, | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | 1/3-1/9 |
| Anglo-Persian Preference (£1)... ... ... ... | $\frac{15}{16}$-1$\frac{1}{16}$ |
| Anglo-Terek (£1)... ... ... ... ... ... | $\frac{1}{16}$-$\frac{3}{16}$ |
| Baku (10/- Shares) ... ... ... ... ... | 5/0-5/6 |
| Batavia (£1) ... ... ... ... ... ... | 19/6-20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{3}{16}$-$\frac{5}{16}$ |
| ,, Preference (£1) ... ... ... ... | $\frac{1}{4}$-$\frac{3}{8}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{5}{16}$-$\frac{11}{16}$ |
| British Burmah Petroleum (£1) ... ... ... | 5/0-5/6 |
| British Maikop (2/-) ... .. ... ... ... | 0/10$\frac{1}{2}$-1/1$\frac{1}{2}$ |
| California (£1) ... ... ... ... ... ... | 5$\frac{3}{4}$-6$\frac{1}{4}$ |
| California Petroleum Preference ($100) ... ... | 58-62 |
| Cheleken (£1) ... ... ... ... ... ... | 1$\frac{17}{32}$-$\frac{19}{32}$x |
| Chijoles (£1) ... ... ... ... ... ... | 1-$\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{13}{32}$-$\frac{15}{32}$ |
| Copan Oilfields ... ... ... ... ... ... | 5/0-5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... ... | 2/0-2/6 |
| Eagle Transport Preference (£5) ... ... ... | 4$\frac{15}{16}$-5$\frac{1}{16}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | 2-$\frac{1}{2}$ |
| Emba Caspian (£1) ... ... ... ... ... | $\frac{1}{2}$-$\frac{5}{8}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 5/6-6/0 |
| Hungarian National (£1) ... ... ... ... | $\frac{1}{2}$-$\frac{3}{4}$ |
| International Russian (5/-) ... ... ... ... | 0/7$\frac{1}{2}$-0/10$\frac{1}{2}$ |
| Kansas-Oklahoma (£1) ... ... ... ... ... | $\frac{21}{32}$-$\frac{25}{32}$ |
| Kazan Oilfields (£1) ... ... ... ... ... | 1$\frac{1}{8}$-$\frac{3}{16}$ |
| Kern River (10/-)... ... ... ... ... ... | 7/3-7/9 |
| Lagunitos (£1) ... ... ... ... ... ... | $\frac{1}{8}$-$\frac{3}{16}$ |
| London Oil Syndicate (£1) ... ... ... ... | 1-$\frac{1}{4}$ |
| Maikop Premier (£1) ... .. ... ... ... | 11/0-12/0 |
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/3-4/3 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0-2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | 1$\frac{7}{8}$-$\frac{15}{16}$ |
| Mexican Eagle Preferred ($10)... ... ... ... | 1$\frac{25}{32}$-$\frac{27}{32}$x |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 85-95 |
| New Caucasian (10/-) ... ... ... ... ... | 1/3-1/9pm |
| New Oil Properties (£1)... ... ... ... ... | $\frac{13}{16}$-$\frac{15}{16}$ |
| Oil Development Trust (2/-) .. ... ... ... | 1/0-1/6 |
| Oil Shale Development (5/-) ... ... ... ... | 3/7$\frac{1}{2}$-3/10$\frac{1}{2}$ |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{16}$-$\frac{3}{16}$ |
| ,, ,, Preference ... ... ... ... | $\frac{1}{2}$-$\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... ... ... ... | $\frac{7}{8}$-1 |
| Pacific Petroleum (£1) .. .. ... ... ... | 22/0-23/0 |
| Premier Oil and Pipe Line (£1) ... ... ... | 5/0-5/6 |
| Ratoczyn (£1) ... ... ... ... ... ... | 2$\frac{7}{16}$-$\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{5}{8}$-$\frac{3}{4}$ |
| Russian General Oil Corporation (£1) ... ... | 1$\frac{3}{4}$-$\frac{7}{8}$ |
| Santa Maria of California Ordinary (£1) ... ... | 17/0-18/0 |
| ,, ,, Preferred (£1) ... ... | 1$\frac{9}{32}$-$\frac{11}{32}$x |
| South Caucasian (£1) ... .. ... ... ... | 1$\frac{3}{8}$-$\frac{7}{8}$ |
| Suez (£1) ... ... ... ... ... ... ... | 4/3-5/3 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | 14/9-15/3 |
| Tampico-Panuco (5/-) .. ... ... ... ... | 7/9-8/3 |
| Traian (Roumanian) (£1) ... ... ... ... | $\frac{7}{8}$-1 |
| Trinidad (£1) ... ... ... ... ... .. ... | $\frac{7}{16}$-$\frac{9}{16}$ |
| Ural Caspian (£1) ... ... ... ... ... | 2$\frac{9}{32}$-$\frac{11}{32}$ |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | 1$\frac{19}{32}$-$\frac{23}{32}$pm |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}$-$\frac{1}{2}$ |

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, JANUARY 17TH, 1914.

## OUR COLONIES AND LIQUID FUEL SUPPLIES.

It is no exaggeration to say that to-day the eyes of those in charge of this Empire's naval policy are anxiously turned to our Colonies in the hope that in the not distant future it may be feasible to secure adequate supplies of liquid fuel for naval needs from dominions under the British flag.

In times past opinions were divided as to the possibility of petroliferous areas being opened up in our various dominions, but to-day there can be no such division of opinion, for it has already been conclusively proved—though perhaps not commercially in every case—that our Colonies do possess oil-bearing territories of no mean order.

The question therefore arises as to when it is reasonable to expect the petroleum industry in these widely-scattered Colonies to be developed to such an extent as to permit the Admiralty to exclusively draw its oil fuel supplies from these new British fields. We have evidence that at the present time numerous companies are putting forth every effort in an endeavour to prove in a commercial sense the value of the oil supply of the Colonies, and we earnestly hope that every assistance will be given these pioneers to realise their best hopes, and to build up a branch of the petroleum industry which shall be of the greatest value as an Imperial asset. The pity is that there are not a few pessimists who upon every possible occasion try to discourage Colonial oil enterprise and throw a wet blanket upon any policy calculated to give an impetus to the development of oil in British dominions.

As in other young oilfields in the world, so in regard to the commercial opening up of our Colonial fields there have been blunders in the past—some of them of a most serious nature—which have done not a little to put back the hand of progress. The prospecting for oil necessitates the concentration of such an amount of skill and practical experience that many of the past blunders may be overlooked on account of the great desire for success which has underlain the efforts. If space permitted we could enumerate many such past failures which have in turn occurred in Australia, Trinidad, Canada, and New Zealand. We will, however, content ourselves by looking to the future with an optimistic eye rather than to take a retrospective pessimistic trend of thought.

It has often been related how grievous mistakes point the road to permanent progress, and this well applies to the petroleum industry, whose foundations have been now laid in many of our over-sea dominions. The progress thus far made not only augurs well for the future, but immediately becomes of Imperial importance, inasmuch as the Admiralty would naturally be in an infinitely safer position in regard to adequate fuel supplies if it were possible to draw at least a substantial portion of their requirements from territories under the British flag.

New Zealand in this respect commands attention, since, thanks largely to local financial support, several companies are to-day actively prospecting promising districts for crude oil. But not only so, for as our news columns to-day show, another has been added to the list of producing wells, whose product is keeping the new refinery steadily engaged. The great home demand for petroleum in New Zealand offers a very remunerative market for the refined products, and this added to the bounty which the Government has generously and wisely given in order to stimulate the production of crude oil, is in itself sufficient proof that there is every reason why in the immediate future, a most active and far reaching campaign in search of oil should be carried out. In fact, this step has already been decided upon, so whatever arguments may be advanced against a permanent petroleum industry in this part of the antipodes, the fact remains that a young yet decidedly healthy foundation has already been laid upon which will be built—there is no doubt about it—an important Colonial industry, which in time of need may be of enormous value for Imperial defence power purposes,

As to Trinidad, though only meagre information occasionally leaks through of the present stage of developments, we know of a certainty that this island to-day possesses a petroleum industry of its own of no mean order, and, if occasion arose, Trinidad can at the moment furnish considerable quantities of fuel for Admiralty needs.

In regard to Canada matters are not so far advanced, though it is an assured fact that the country possesses the necessary mineral wealth to supply almost the whole of the liquid fuel which our Admiralty may need. The Dominion Government, as we announce elsewhere, recognises the importance of conserving fuel supplies as much as possible, and with this end in view has issued a regulation under which the product from any new producing wells may be called in for Admiralty purposes. But we have all along contended that the great opportunities for expansion in the Canadian oil industry do not lie in the multiplicity of its oil wells but in the energetic development of the enormous oil shale deposits found in many parts of the Dominion. If only these were commercially developed upon a scale commensurate with their Imperial importance, Canada would soon have at its disposal almost unlimited quantities of liquid fuel of first-class quality, and be in a position at the same time to cater for the needs of its home markets, which are large consumers of every conceivable kind of petroleum product. We cannot too strongly emphasise the urgent necessity which exists for the development of Canada's shale deposits. The one pity is that when any new scheme is drafted for turning some of these oil shales into commercial account, the promoters do not appear to grasp the fact that if this development is to mean anything at all, it must be conducted upon a large scale, which will call for the expenditure of millions of money A company commencing its career in the Canadian shale fields with a capital of, say, only £100,000 is out for but one thing, and that is to court disaster and bring into disrepute a proposition which, if backed by sufficient capital and held under the guiding hand of experienced oil men, is bound to be a particularly remunerative proposition.

To those who will insist on "Oil under the British flag" let us say a few words: bring sufficient financial assistance to bear, and the prize is yours for the asking.

◆

**The Death of Mr. Ephrussi.**—We regret to state that owing to a typographical error the name of Mr. Michel E. Ephrussi was incorrectly given as Mr. Maurice Ephrussi in our last issue.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JANUARY 12th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. | Since Jan. 5. | From Jan. 1. |
| Belgium .. | — | — | 15,700 | 18,100 | — | — | — | — | — | — | — | — | — | — | 15,700 | 18,100 |
| Canada .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Dutch Indies | — | — | — | — | — | — | — | — | 812,000 | 1,429,000 | — | — | — | — | 812,000 | 1,429,000 |
| Germany .. | — | — | 33,060 | 35.950 | — | — | — | — | — | — | — | — | — | — | 33,060 | 35 950 |
| Holland .. | — | — | 2,410 | 2,410 | — | — | — | 55,000 | 439,000 | 464,000 | — | — | — | — | 441,410 | 521,410 |
| Mexico .. | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Roumania .. | — | — | — | — | — | — | — | — | 9,000 | 651.140 | — | 1,207,910 | — | — | 9,000 | 1,859,050 |
| Russia . | — | — | 60 | 800 | — | — | — | — | 1,907,310 | 1,907,310 | — | — | — | — | 1,907,370 | 1,908,110 |
| U.S.A. .. | 2,803,990 | 3,176,870 | 1,635,710 | 2,018,390 | 5,280 | 5,280 | 1,703,000 | 4,300,920 | — | — | — | — | 29,850 | 29,850 | 6,177,830 | 9,531,310 |
| Other Countries | — | — | 770 | 1,970 | — | — | — | — | — | — | — | — | — | — | 770 | 1,970 |
| | 2,803,990 | 3,176,870 | 1,687,710 | 2,077,620 | 5,280 | 5,280 | 1,703,000 | 4,355,920 | 3,167,310 | 4,451,450 | — | 1,207,910 | 29,850 | 29,850 | 9,397,140 | 15,304,900 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Fuel Prices Advance.**—The price of liquid fuel to consumers in Los Angeles, Cal., has been advanced to 75 cents per barrel, which is ten cents more than the figure which ruled a few months ago.

**Refinery Fire.**—A considerable portion of the plant and storage equipment of the Pacific States Refineries located at Oakland, Cal., has been destroyed by fire due to the ignition of gasoline while on one of the company's delivery trucks.

**The Pierce-Fordyce Association.**—Extensive preparations have been made by the Pierce-Fordyce Oil Association for the handling of large quantities of Mexican crude oil from the Tampico fields at Texas City. It is reported that the Association will not freine any of the oil, but will distribute it from Texas City as liquid fuel for which there is a heavy demand.

**Naval Fuel Safeguards.**—A change in the Dominion of Canada's oil regulations has just been decided upon which, in view of the increasing use of liquid fuel for naval needs, is of vital importance. By the new regulations, in every lease issued by the Department of the Interior there is to be a clause reserving the use of any wells for the British Admiralty in case of need.

**A Huge Dividend.**—The shareholders of the W. K. Oil Company of California have received one of the largest dividends ever paid by an oil company in California at one time. This was $3 per share on 500,000 shares, representing the disbursement of $1,500,000. This huge payment is the result of the purchase of the W. K. properties by the Shell-Royal Dutch interests. The shareholders of the W. K. Company have been receiving regular monthly dividends for two or three years, so that when the company is wound up, they will have received something like $2,000,000 in dividends upon an original investment of possibly less than $250,000.

## RUSSIAN.

**A New Company**, with one million roubles capital, has been formed for the purpose of developing petroliferous land near the village of Bjulbjule, Baku district.

**Messrs. G. M. Lianosoff & Sons.**—A general meeting of this company took place last month for the purpose of sanctioning an increase in the capital of the company to 30,000,000 roubles.

**The Emba-Dossor Company.**—A new Russian company—the Emba-Dossor Company—has just been formed with a capital of 1,500,000 roubles. The founders of the company are Mr. Leitis and Mr. Kahn, both of Baku.

**Progress at Maikop.**—There is much activity in the Maikop fields, the successful results of the Maikop Victory Company in its new well on plot 488 being very encouraging. Oil has been struck in this well at a depth of 790 feet. This plot formerly belonged to the Maikop Spies Company.

**A Boom in Ural Properties.**—Quite a boom is developing in regard to oil properties in the Urals, and several new companies have recently been formed having head offices at St. Petersburg. It is reported that important deals are pending in England, owing to the successful results which have attended the operations of the operating companies.

## ROUMANIAN.

**The Danube Oil Company**, of Roumania, has just been formed with a capital of £700,000 sterling.

**Crude Oil Prices.**—The quotations for crude oil are still firm, the Bustenari type being quoted at 8.10 frs. per 100 kilos, while Bana oil is as high as 10.80 frs.

**Production.**—The general crude oil output of the country is maintained at the level of 5,000 tons per day. The Moreni well No. 8 P—of the Romano-Americana continues its eruptions producing an average of 350 tons per day.

**Export.**—The export movement of oil is good, but the difficulties in regard to railway transport are still acute. It is maintained that a minimum of seven trains per day are required for the needs of the industry.

**The Astra-Romana.**—The production of this company during 1913—the New Style being adopted—amounts to 444,000 tons as compared with 447,000 tons produced during the preceding twelve months. The decline falls on the Moreni-Stavropoleos district, where the production for the year on the company's properties shows a decline of over 17,000 tons. This is, however, partly compensated for by the increase from Bana-Moreni of 3,200 tons and Filipeshti de Padure, where the company's increase is 7,700 tons.

**New Tanker of the Steaua-Romana.**—The new tanker of the Steaua-Romana, "Arthur von Gwinner," has made her trial trip. This tanker has been built for transporting oil from Roumania. Its length is 95·57 metres, width 13·40 metres, height 8 metres, and depth 5·79 metres. Its carrying capacity is 4,250 tons of residuals and 3,200 tons of benzine, plus ballast. The engines are of 1,300 h.p., and the tanker's speed is 10 knots. The consumption of liquid fuel is 0·200 kilogrammes per h.p., with an allowance of 10 per cent. The tanks are divided into ten compartments, of which each can be discharged separately. Two horizontal pumps allow of a discharge of 3,600 tons a day. The propulsion is supplied by two directly reversible motors using liquid fuel.

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# THE LOBITOS OILFIELDS, LTD.

## RESULTS OF DEEP BORINGS IN THE PERUVIAN FIELDS.

By RICARDO A. DEUSTUA.

*Reprinted from* "PERU TO-DAY."

THE companies exploiting the petroleum deposits in Peru have maintained a steady and consistent development, and among them the Lobitos Oilfields, Ltd., may be selected as a typical example of the hazards as well as the rewards of oil production and exploration within the boundaries of the Republic. It is worthy of note that, parallel with this increased production, there has been an appreciable increase in the market price of the crude product, and that at the present time the supply is greatly in arrears of the demand. The satisfactory results obtained by deep drilling, proving the richness of the lower petroleum sands in the Lobitos zone, and which have proved to be the richest in filtrations and those which return the best product; the exploration of other zones, such as the deposits in the Cabo Blanco zone, Grillo ravine, Bocapán, etc.; the nature of the crude product exploited, its abundance, and the good market abroad, are all reasons that have had their share in strengthening the financial position of the company.

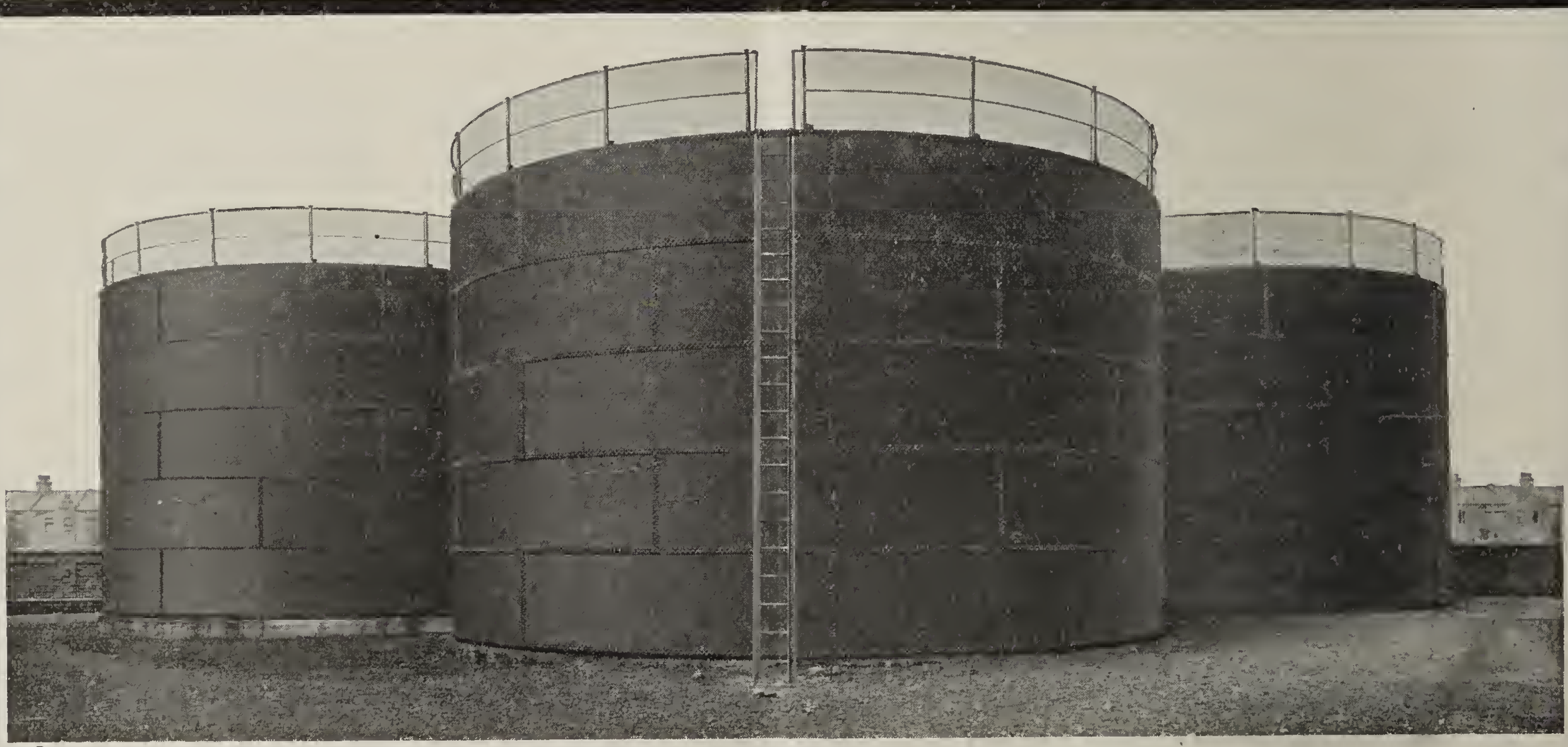
According to the information made public at the last general meeting of the shareholders of the Lobitos Oilfields, the gross profits had ascended to £107,000. From the net profits a 10 per cent. dividend had been declared, the sum of £10,000 was transferred to the reserve account, and £19,718 set aside as working capital for the present financial year. The payment of a 10 per cent. dividend is a sufficient indication of the flourishing state of the company, and the large sum added to reserve must likewise inspire confidence and guarantee up to a certain point the future stability of the concern, because in the majority of the Peruvian deposits faults of uniformity of distribution and richness make it a very delicate problem to guarantee a constant progress in exploration and production. As to the quality of the oil exploited there is nothing to fear, as it has been demonstrated that the petroleum produced in this region is generally rich in volatile substances and is of excellent quality for distillation. The demand for the distilled product is also greater than the production, the market price is good, with a marked tendency to betterment. The market for the residue is equally advantageous. It has also been proved that the deeper the wells are driven the richer the petroleum is in volatile substances, and that the sands impregnated with these substances are also richer in filtrations. As to the exact location and extension of the sands saturated with petroleum, it is a question which depends entirely on chance. Neither in Lobitos nor in any other of the Peruvian deposits so far explored do the stratification and structure, as in the majority of foreign deposits, give much assistance in the orientation of wells. Fortunately, when an area of considerable importance has been located, from the point of view of the number of petroleum sands superimposed and the quantity of oil which each one of them renders, this area is developed to the greatest productive capacity possible by multiplying the number of perforations and their depth, some having reached a level of 3,000 ft. By this means the Lobitos Company has been able to produce during the year 1912 the quantity of 78,273 metric tons of crude petroleum, that is, 26,101 tons more than was produced the year before (1911). This increase in production resulted exclusively from the drilling of deep wells, and the production of these wells has proved that the deeper petroleum sands are the richest in filtrations and that the wells which have been advanced through them have the longest flow and the most constant of any in the petroleum zones of Northern Peru. As a general rule these wells are self-flowing during the early stages of production, and later, by the introduction of pumps, a considerable and constant quantity of petroleum is secured for a period, which has not yet been definitely fixed, because none of the producing wells have so far entered upon a period of appreciable decrease in production. There are wells in the Lobitos fields, which in the first few weeks after being tapped, have produced more than 500 barrels of crude petroleum daily, that is, more than 66 metric tons, decreasing after to 100 barrels a day. After a period of one or two years, according to the case, pumping operations are commenced, and by this means the production is again augmented.

The petroleum sands in Lobitos, as in the adjacent zones, are of a limited and irregular area, without uniformity in distribution, nor equality in degree of saturation. This explains why neighbouring wells give results of such a different character and why it is so difficult to locate producing wells, even in zones that have given more or less satisfactory results. If this factor is important when taken in connection with the common run of wells, the drilling cost of which does not exceed £3,000 or £4,000, and the maximum depth ranging between 1,500 and 2,000 ft., it will at once be seen how vital the question becomes in sinking deep wells of 3,000 ft. or more, as was the case with one particular well in the Lobitos fields, which was carried to a depth of 3,600 ft., requiring a year and a half of labour, and which cost in the neighbourhood of £10,000, without producing a single barrel of oil, although located in the vicinity of a well of lesser depth, which has given highly satisfactory results. In spite of these rather disappointing results and the danger of their recurrence, the Lobitos Company has invested large sums of money in sinking wells of equal depth, because, when important sands are encountered in the deep borings, they more than make up for the losses sustained in drilling in dry areas. Of the 113 producing wells in operation during the past year, 101 of them were of less than 2,000 ft. in depth and their production amounted to only 36,821 metric tons of petroleum, while the 12 remaining wells, whose depth exceeded 2,000 ft., produced 41,552 metric tons. Of these last

9 were carried to a depth greater than 3,000 ft. and all were self-flowing, with an average daily production of 100 barrels ; it being understood that their production in the first few weeks was much greater, as referred to above. It is then a demonstrated fact that the results obtained from deep borings have contributed largely to the recent progress of the Lobitos oilfields, a fact recognised by the directorate in London, when they decided that all of the new wells should be of equal depth, in spite of the risk of sinking costly shafts without encountering oil. This decision was taken with due consideration of the following facts :—Of the thirteen wells drilled during the past year only nine gave satisfactory results, and the four remaining shafts were failures ; yet in explorations of this nature the result is considered encouraging if, for example, one out of five wells proves to be of importance, satisfactory if one out of three wells is productive, and highly successful if two out of three wells yield returns on the investment.

By way of illustration, the cost details and corollary data on sinking a deep shaft in the Lobitos fields will be given. Well No. 166, for instance, was sunk in the Bay of Lobitos, 1,200 ft. from the beach, and was carried to a depth of 3,435 ft. without any result, in spite of the fact that it was located only 1,000 ft. from the site of well No. 100, which had given good results and is still producing, although having a depth of only 2,500 ft., and 2,000 ft. from well No. 169, which had given equally splendid results after being carried to a depth of less than 2,500 ft. These two last wells are separated by a distance of 1,000 ft., and both produced 500 barrels daily for the first few weeks after having been tapped, the greater portion of which production was drawn from the deepest petroleum sands. Nevertheless, well No. 166, of greater depth and located in the same formation as the other deposits, gave no result, the company being forced to abandon operations after seventeen months of continuous labour, and after having invested £7,000 without any return. Layers of sand impregnated with very slight filtrations were encountered between the 1,022 and 1,385 ft. levels and between the 1,445 and 1,580 ft. levels. Beyond this depth only thick layers of clay, one of which was nearly 1,000 ft. deep, were encountered, intercalated with thin layers of sandstone, of diverse degrees of porosity. The daily advance in the boring operations was very variable. However, it may be said that as a general average the advance in the first 1,500 ft. is rapid, in the present case amounting to 122 ft. a day. After reaching the 1,500 ft. level the advance decreased considerably in proportion to the increase in depth. Beyond the 3,000 ft. level the advance became as small as 5 ft. on the average, although at times the shaft was sunk 7 and 9 ft. a day. It is necessary to note that this data applies only to the geological formation of the Lobitos fields, and may in no manner be considered as a normal advance in other shafts of equal depth, because of the variability of conditions met with in each boring operation. In borings of small depth, and eliminating accidents of any sort, such as deviation of the drill, loss of tools in the shaft, landslides, etc., 20 ft. a day is considered a fair average advance.

(*To be concluded.*)



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# Remarks on the Origin of Petroleum.

By Mr. E. H. PASCOE, M.A.

*An interesting chapter from the Government Bulletin "The Oilfields of Burma."*

No systematic or exhaustive treatment of this subject will be attempted here; such can be found by more competent and experienced writers in more elaborate treatises, one of the latest of which is the masterly work of Engler and Höfer, "Das Erdöl." In this chapter I shall merely endeavour to indicate the conclusions to which the evidence of the Burma oilfields tends, with additional allusions to some of the general arguments which seem to me more appealing or are less frequently brought forward. It will also be a convenient means of introducing some points of miscellaneous interest bearing directly or indirectly upon the great question. Of the two main theories respecting the source of petroleum, the organic is the one which at the present day finds more supporters, especially among those who have had practical experience upon oilfields. In view of this and of all the arguments for it so ably marshalled by Engler and Höfer, I should have been inclined to assume without further question the organic origin, were it not that more than one geologist of some note, after having seen something of the oilfields in the Indian Empire and other parts of Asia, has held a different view from my own, and has favoured an inorganic or deep-seated origin; some brief defence will not be out of place, therefore, if only to show that there are no phenomena peculiar to the Burma fields, which favour the inorganic theory.

At the outset the nature of the substance itself favours the organic view. We have an organic substance, or rather a mixture of a great number of organic compounds, many of them of complex molecular structure and exhibiting optical activity due to the presence of substances characteristic of animals and plants, cholesterin and phytosterin respectively. The constituent elements include in most cases sulphur, either in estimable quantity or in traces, and phosphorus in traces. These features and constituents petroleum possesses in common with both animal and vegetable organisms, the only difference in composition being a conspicuous lack of oxygen and nitrogen in the former. Decomposing organic matter exerts a reducing action under normal conditions, and it has been objected that a decomposition process could not have given rise to a loss of oxygen. The researches of Potonié, Stremme, and Späte have shown, however, that there are two kinds of transformations, according to the presence or absence of free oxygen or air. In the latter case there is no simple decomposition, but a putrefaction or bituminisation, producing complex bodies richer in carbon and hydrogen. There is one unquestioned example in which such a process causes a surrender of oxygen and produces a hydrocarbon, viz., the natural formation of marsh gas in stagnant pools.

According to Thorpe marsh gas consists of a mixture of methane, nitrogen, and carbon dioxide in varying quantities, and no one will question the organic origin of this well-known product. According to Abegg and Auerbach, it is formed by the decomposition of organic matter by means of "mud ferments" (Schlammfermente), and contains usually about 80 per cent. methane. It is due chiefly to the decomposition of cellulose, $C_6H_{10}O_5+H_2O=3CH_4 3CO_2$, also, according to A. Baginsky, of lactose and other carbohydrates. Schloesing's analyses of fire-damp, a gas practically identical with marsh gas, gave—

| | Per cent. |
|---|---|
| $CH_4$ ... ... ... ... ... | 55·6—96·97 |
| N ... ... ... ... ... | 2·2—39·87 |
| O ... ... ... ... ... | 0—0·87 |
| $CO_2$ ... ... ... ... ... | 0—4·17 |

The nitrogen was found to contain the same percentage of argon as the nitrogen of the air, and is therefore to be looked upon as derived from absorbed air, the oxygen of which has been used up during the fermentation process. Characterising, as it does, an organic substance like coal, fire-damp must be regarded as of indisputable organic origin. The nitrogen in the gas from marshes is probably of aërial origin also, though no experiments upon it seem to have been performed. Methane streams out of fissures in North America, Italy, and other places, and notably in the neighbourhood of the oil region of the Caspian Sea at Baku; the gas may produce mud volcanoes. Schloesing found that the inflammable part of fire-damp, although consisting almost entirely of methane, "comprenne une proportion, faible mais sensible d'hydrocarbure étranger," while Höfer states that "earth-gas" (Erdgas) includes the four or five lowest members of the methane group, among which, however, methane greatly predominates (60 to 80 per cent.).

Omitting such occurrences as the mud volcanoes of Rotti and Kambing (Malay Islands), of New Zealand and other places where the mud and gas are said to be of abyssal origin, we have to consider the shallow type of mud volcanoes or salses found in oilfields. These may be looked upon as mere emanations of gas, the pressure of which has been sufficient to force a way from the reservoirs below to the surface; the mud is only an accidental feature, due to the intermediate or proximate occurrence of water-bearing strata. From its low temperature and the nature of ejectamenta, we know that these gas strata are shallow-seated and identical in kind with those tapped by the drill. This earth-gas varies in composition, but an average sample contains about 80 per cent. methane, about 8 per cent. ethane, 5 per cent. or more nitrogen, varying proportions of propane, ethylene, and oxygen, and perhaps a trace of carbon dioxide. Earth-gas occurs, not only in separate localities or gasfields, not only in distinct areas in oilfields, but in the oil itself, being largely dissolved therein, and forming part and parcel of it; gas is, in fact, nothing more than very light oil.

It has been shown therefore that methane is in reality a constituent, and a by no means neglible one, considering the vast volume of gas released on the relief of pressure, of crude petroleum. It is at the same time the main constituent of two undoubtedly organic products, marsh-gas and fire-damp, of which it forms a proportion practically the same as it does in petroleum-gas or earth-gas, viz., about 80 per cent. It is also associated in all three products with higher hydrocarbons. There is therefore a direct affinity between petroleum and these two organically produced forms of methane, and, through fire-damp, an indirect relation to coal, another unquestionably organic compound. There are other and more direct relationships to coal which will now be considered.

The evidence of oil shales—shales which yield a crude petroleum on distillation—may conveniently be considered first, since they have peculiarities not found in normal petroliferous strata. In Scotland the presence of these well-known deposits in the coal-bearing calciferous sandstone series of the lower carboniferous cannot be regarded as a mere coincidence. If it were, the similar position of the oil shales of Nova Scotia and elsewhere would disprove it. It is not maintained that oil shales can occur in no other than coal-bearing strata, but the existence of some of the best-known oil-shale industries in coalfields has not the appearance of being accidental. Certain of the coals have been themselves distilled for oil. Mr. D. R. Steuart, in his paper on "The Oil-Shale Industry of Scotland," remarks that "throughout the coal measures there were many bands of [oil] shale, and often in connection with coal seams." "Shale seams were worked in the Clyde Valley coalfield," and "in Fife, Midlothian, Lanarkshire, Stirlingshire, Renfrewshire, and Ayrshire, shale and bastard parrot coals were worked in the coal measures, millstone grit, and mountain limestone." "Shale or gas-coal was worked for oil at various places in the English coalfields also, namely, in Yorkshire, Cheshire, Lancashire, and Staffordshire, and especially in Flintshire, North Wales." One point of interest is the fact that most of the oil shales occur lower down than the coal, though the higher-lying shales, possibly on account of the tendency of oil to rise, are the richest. The upper calciferous sandstone may be divided into two divisions, of which the upper carries inferior coal-seams and the lower, seams of oil shale interstratified with sandstones, shale, fire-clay, marls, and estuarine limestones; in other words, petroliferous beds pass up into carbonaceous. The yield varies from 16 to 35 gallons per ton of shale. Some of the shales yield a considerable proportion of solid paraffin. Incidentally, another important fact may be mentioned here, and that is the accompanying gaseous ammonia in the oil shales, five of the latter producing over 50 lb. of sulphate of ammonia per ton; the greater the amount of oil the less the ammonia. We have therefore an association of petroleum with another organic compound, a typical animal product, in fact.

In Nova Scotia, according to Mr. R. W. Ells, oil shales occur in the Upper Devonian and the coal measures, and some apparently are associated with upper carboniferous rocks; the richest (Picton) are found in the carboniferous. North of Antigonish town they pass into coals, none of which are considered large enough to work. "Some of the shales are said to have the characteristic strong odour of petroleum"; many yield ammonia. In New Brunswick oil shales occur in the topmost Devonian, underlying the lower carboniferous, and occupying a position very close to that of the calciferous series of Scotland. In this part of the world there seems to be a general tendency for the oil to lie in lower horizons than the coal series. In the Blue Mountains of New South Wales important oil shales are found in the permocarboniferous or upper coal measures, and yield, in some cases, besides oil, over 17 cubic ft. of gas per ton of shale; ammonia is also a by-product varying inversely as to the amount of oil obtained. Mr. W. H. Twelvetrees, speaking of the Tasmanian oil shales, mentions a seam of coal 20 in. thick, carrying 6 in. of pitchy black conchoidal kerosene shale or Cannel coal, with from 67 to 76 per cent. volatile hydrocarbons. (Petroleum Review, September 24th, 1910, p. 200.)

There remain to be considered those curious substances which appear to be intermediate in character between ordinary coal and petroleum, viz., Torbanite, of Scotland, and its varieties in New Zealand, Autun (France), Russia, and the United States; Albertite, of New Brunswick; Stellarite, of Nova Scotia; Joadga, of New South Wales; Kentucky Cannel coal (Old Kentucky Boghead); and possibly some of the petroleum rocks of Tasmania ("Tasmanite"). Mr. Steuart thus describes the first: "The Torbanehill mineral is of a brown or nearly black colour; there were brown and black varieties, and the brown was the richer. It had a yellow or fawn-coloured streak, without lustre, and sub-conchoidal fracture, was amorphous and apparently homogeneous when fresh, but showed distinct stratification when spent in the retort. It was very indestructible, and did not deteriorate with weathering. Near basalt dykes it became soft, sticky, and brown, resembling melted india-rubber. In the laboratory it takes fire readily when put to a flame, splits, does not fuse, burns with a very smoky flame, giving an empyreumatic odour, and leaving a considerable amount of white ash. . . . It yielded 44 to 48 per cent. of oil (specific gravity about 0·890) and 1 to 1½ per cent. of solid paraffin. Heated in a closed crucible the mineral gave (Dr. Fyfe) 67 to 70 per cent. of volatile hydrocarbons, 6·6 to 16·3 per cent. fixed carbon, and 12·8 to 23·2 per cent. ash. . . . The specific gravity varied from 1·17 to 1·316." Small quantities of nitrogen and sulphur are also found in it. The other "minerals" will not be described here, but enough has been said to show how they link together coal and oil.

As a rule the oil does not exist as such in the oil shales, and is only obtained by distillation. Professor Crum Brown suggested the name "Kerogen" for the substance which produces oil on distillation and which would have to be regarded as allied to the torbanite compounds, but nearer to true petroleum. But in some of the borings in Scotland, free petroleum was found in small quantities, one producing 100 or 200 barrels (presumably total production). From a cutting in these shales a constant oozing of petroleum and brine was accompanied by a strong smell of gas, and shale brought up from this horizon in boreholes smelt strongly of petroleum.

(*To be continued.*)

# THE DECLINE OF OIL-PRODUCING WELLS.

## POSSIBLE CAUSES AND SUGGESTED REMEDIES.

By Mr. L. G. HUNTLEY.

*(Continued from page 54.)*

THE ideal cycle of production in a pumping well very closely approximates that of a well packed by the old seed-bag method, as follows (adapted from an unpublished manuscript by M. W. Quick):

(*a*) Pressure is developed in the well sufficient to overcome the resistance of the column of liquid in the tubing, which is expelled naturally or pumped off.

(*b*) The weight of petroleum in the well column overcomes the rock pressure and a point of equilibrium is reached. The excess of pressure of the shut-in gas over that of the column of oil has only a slight retarding effect on the further expulsion of oil, as the shut-in pressure can never exceed the rock pressure.

(*c*) The pump is started and the "head" of oil above the top of the sand is pumped off and the shut-in gas is allowed to escape. Thus the only gas released is that originally in the head of oil where it aids in expelling the oil.

(*d*) The well is again shut in and again heads.

Although such control is practically impossible where the pumping of the well is regulated by ordinary methods, yet an automatic device for such regulation would result in the maximum recovery of oil with the least possible loss of expulsive energy from the stratum. To duplicate this cycle pumping methods must be controlled by intrastrata conditions in some automatic manner, otherwise wells will be pumped too frequently to ensure the greatest production. The refrigerative resistance of chilled oil may not be overcome between the pumping of accumulated heads of oil, and energies for the expulsion of sediments and waxy accumulations may not be developed.

Automatic devices are on the market, but owing to the inertia of the producer relative to trying out such seemingly revolutionary schemes they have not been given a fair trial under the conditions to which they are adapted. A general recognition of the need of such automatic control for the pumping of oil wells, governed by the natural underground conditions at each well, would result in the perfecting of many details to adapt the devices to the varying needs of different fields. Thus the production of districts now being abandoned with large quantities of oil still remaining in the rock would be increased. The requirements of each well vary and the necessities of to-day will not apply to-morrow. Conservation of rock temperature to prevent chilled and "cut" oil, by the use of head pumping, bleeders, or leaky valves, causing the flooding of the sand and reducing refrigeration of the gas by expansion, is necessary in the fields producing high-grade paraffin oil. It is not necessary in the Mexican and other fields producing heavy oils that contain no spontaneously volatile hydrocarbons. The rock temperature of the low-gravity oils of Texas, California and Mexico is frequently higher than that of the surface, that of the Mexican oils being from 110° to 130° F. If this were not so the high production of wells in these fields would be an impossibility. High-grade gaseous oil must, of course, be handled differently from the heavy oil of the fields last mentioned.

The flowing of wells by compressed air is falling into disuse in the Eastern and Mid-continent fields, as it has a tendency to cut the casing and the tubing. Flowing is not economical for small wells, there not being a sufficient head of oil against which the air may act. The effect in practice is to increase vaporisation and the formation of waxy sediments and to clog the face of the sand.

Air-lift pumping has been tried with the same effects as regards increasing the chilling of the oil and the formation of paraffin.

Increased production may sometimes be obtained by using large casing. This makes possible the use of large strainers where desirable, and the use of an inside perforated casing or liner where the formation is inclined to cave and cause the casing to collapse; in fact, the large-sized holes make the future handling of the well, or future deeper drilling, an easier problem. It may be said that wells that might flow naturally with a small-sized casing would cease to do so through a large hole. This difficulty is sometimes overcome by using a reducer on the bottom of the lowest string of casing, the well flowing through a 2-inch tubing for a long period after it has ceased to flow with only the $5\frac{3}{16}$-inch casing in the hole. The larger hole has a tendency to drain the territory more quickly, and consequently the well will very probably be shorter lived than if the hole were smaller in diameter. Also the larger hole probably results more frequently in chilled oil, caused by the greater surface from which volatilization occurs. Enough information has not been gathered to give definite figures as to this.

In the early development of new fields, in the hurry to tap the principal oil stratum in advance of rival operators, all overlying "pays" are neglected and usually are cased off, no record of them being kept by the driller, who is usually paid for drilling by the foot or by the well. In later years, when production has fallen off in the older sand, it often becomes desirable to tap the upper sands, but by that time it is frequently impossible to know how deep they lie. In drilling by the wet method in the early days the water pressure prevented some minor oil "pays" from indicating their presence. These have since been developed and some of them have proved large producers.

Improved methods of drilling, a better knowledge of the geology of oil and gas, and the rapidly increasing demand for petroleum have recently resulted in a search for petroleum by deep drilling in many of the older fields, some of which are enjoying a new lease of life, notably parts of the Clinton sand fields of Eastern Ohio, the St. Mary's pool in West Virginia, and some of the Pennsylvania fields. It is considered not improbable that the Mid-continent fields have a deep-sand future.

In spacing wells the utilisation of the movement of the oil in a pool, and the thorough draining of the maximum amount of territory with the minimum number of wells are the two main considerations. As regards the first, as has been mentioned, the wells should be spaced closer together across the dip of the formations than down the dip or in the direction in which the oil is draining. In any given field advantage should be taken of all available data bearing on the effects of wells on each other at different distances and in different directions. Hager gives an interesting method for obtaining data regarding the proper number of wells necessary to drain a certain given territory as follows :—

"The property, 640 acres, is underlain by three sands. The tables below show the known and the computed information prepared . . . . from a study of a large number of wells :—

*Table A.*

| Area underlain by sands.<br>1 | Thickness of sands under each acreage.<br>2 | Number of acre-feet.<br>3 | Computed quantity of oil available.<br>4 |
|---|---|---|---|
| *Acres.* | *Feet.* | | *Barrels.* |
| 200 | 95 | 19,000 | 9,000,000 |
| 200 | 65 | 13,000 | 6,600,000 |
| 240 | 40 | 3,600 | 4,400,000 |
| 640 | | 41,600 | 20,000,000 |

*Table B.*

| Thickness of sands.<br>1 | Production per thickness in 1.<br>2 | Life per thickness in 1.<br>3 | Number of acres.<br>4 | Computed number of barrels. available.<br>5 | Number of wells needed.<br>6 | Acres per well.<br>7 |
|---|---|---|---|---|---|---|
| *Feet.* | *Barrels.* | *Years.* | | | | |
| 95 | 180,000 | 9 | 200 | 9,000,000 | 50 | 4 |
| 65 | 120,000 | 7 | 200 | 6,600,000 | 55 | 3.6 |
| 40 | 80,000 | 5 | 240 | 4,400,000 | 55 | 4.4 |
| | | | 640 | 20,000,000 | 160 | 4 |

"Columns 1, 4, and 5 are taken from Table A, and correspond to columns 1, 2, and 4 respectively (which are of importance in reaching a conclusion as to the number of wells needed). Columns 2 and 3 in Table B are derived from data collected from a study of a large number of wells. Column 4 is obtained by dividing the figures in column 5 by those in column 2. Column 7 is obtained by dividing the figures in column 4 by those in column 6. These results are purely assumptive, and should in no way be considered as of value except for the purpose of illustration."

As Hager states : "Every operator desires some idea of the amount of oil he may reasonably expect from a property. Estimates of this kind are only approximate and are useful guides to conservative men." The above method should be used with care and in connection with all data obtainable as to the location of the property in relation to the rest of the pool, and in estimating the theoretical quantity of oil available from the thickness of the sand, good judgment based on accurate data is necessary to determine the true thickness of the sand as shown by the drillers' logs. In some pools only a part of the porous stratum is saturated with oil, or other prevailing conditions make calculation of oil content on this basis incorrect. The method could, of course, be used only in territory already proved.

With regard to cleaning wells, Roswell Johnson, professor of petroleum engineering, University of Pittsburg, makes the following statement regarding the Mid-continent fields :—

"I find that there are operators who never clean their wells, others who do so only as a last resort when the well is near abandonment, and others who do it periodically. I should say that on an average wells are not cleaned oftener than once in three years. This matter is important, because the practice is so variable and the work is so expensive. My own views are as follow :—

"*When water is not found in the sand.*—In case the sand does not carry water a pocket about 10 feet deep should be drilled below the sand. Besides the possibility of revealing a second pay the pocket provides a receptacle for loose sand or cavings without affecting the well. I would have the intake of the pump opposite the bottom of the pay and have a small air hole in the working barrel near its top at the top of the pay. The first cleaning immediately after the shot should be thorough and should empty the pocket. Such a well, by sanding its pump cups, will automatically show when cleaning is needed. When the pump is pulled for renewing the cups the depth of the well should be measured with a tape to see how much the pocket has filled. If the filling is more than 2 feet, it probably will pay to clean the pocket; if the filling is less, the working barrel can be set higher until the cups have to be replaced again. Of course, with oil selling at 60 cents one would not be as intent on cleaning as with oil at $1.50. As soon as a well is in good shape I think the derrick should be removed and used elsewhere. Pulling is done with a pulling machine and cleaning with a drilling machine. I think the shot should be placed at the bottom of the pay, so that the hole made will extend still farther and, with the pocket, give space for a considerable accumulation of loose sand before the intake is reached. When the well becomes unremunerative a working barrel without the air hole may be put in ; then the well can probably be pumped a little while longer.

"*Where there is non-encroaching water under low pressure in the bottom of the sand.*—If there is water under low pressure in the bottom of the sand, drilling should be continued until water is evident, and should not be stopped at the depth where water is expected. The pocket should be omitted and the well should be shot at a point only one foot above the supposed line between the water and the oil. The first cleaning should be thorough. Effort should be made to have the well "make" considerable water with the oil, care being taken, of course, not to get so much that a 24-hour flow through the 3-inch pipe will exhaust the water, if fuel is cheap. By taking this water, assurance is had that no pay will be missed ; also the current of the water flowing to the hole helps to move in the oil.

"*Where there is non-encroaching water under high pressure.*—In case there is non-encroaching water under high pressure, care should be taken to stop wells a little short of the water. They may be drilled deeper to the water when it is desired to clean them. In my opinion, many of our deserted wells could, if containing water, have been handled a year or two later when neighbouring wells had reduced the pressure.

(*To be concluded.*)

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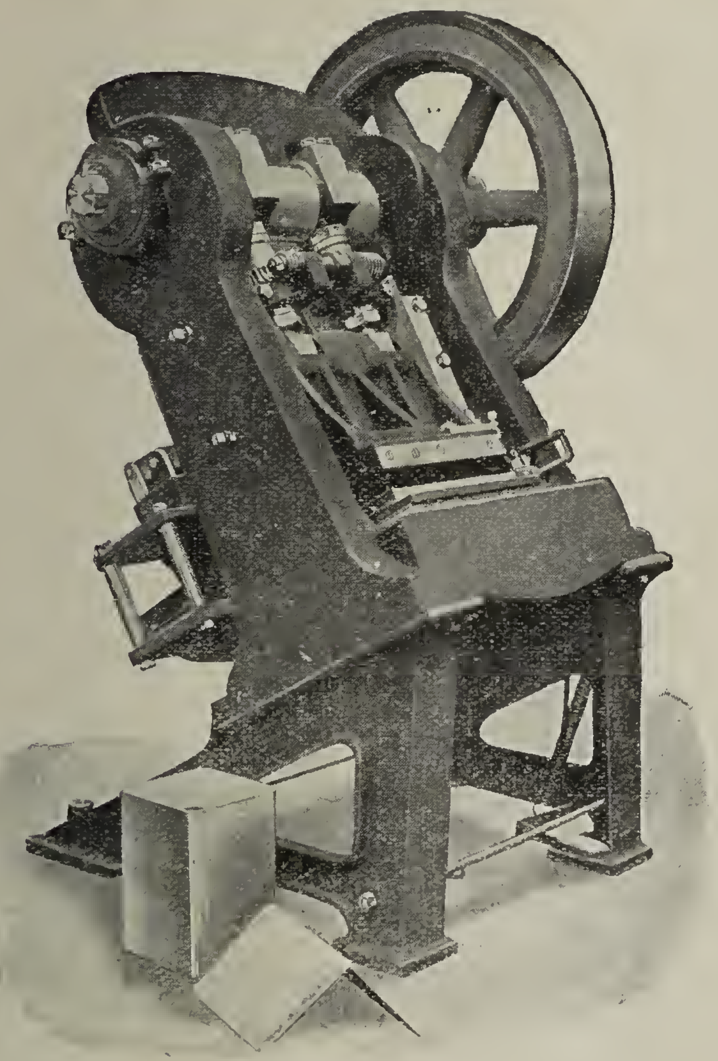

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# The American Oil Market.

### Saturday, December 27th, 1913.

With fairly good conditions for development work in the Eastern fields during the week, the record of completions shows a material gain, with a corresponding increase noted in new production. The best completions returns, says the *Oil Paint and Drug Reporter*, were scored in North-western Ohio, Indiana, and Illinois, but in all of these fields the new production for the week registered losses. The only gains in new production were in West Virginia and Kentucky, in the face of fewer new wells. The current summary shows 248 completions, 5,250 barrels of new daily production, and 65 dry holes, comparing with 225 completions, 5,065 barrels of new daily production, and 72 dry holes for the former week. Illinois now holds a commanding lead in both completions and new production. In West Virginia there is said to be more wells producing 100 or more barrels a day than of any time this year. They are located in territory that has been under partial development some years ago, and it was only under the stimulus of the strengthening crude market that operators were again attracted to the possibilities of these districts. The outlook for encouraging results in the Sardis district of Harrison county sustains keen interest in development work there. This county is the most prolific source of new production in West Virginia.

The amount of oil in storage in the Mid-continent field is placed at more than 56,000,000 barrels and the available open storage is estimated at about 4,000,000 barrels. At the present rate of storage of 20,000 barrels daily the available facilities would be exhausted in about six months. If additional storage has to be provided, it will probably be at the expense of the producers in the form of lower prices for crude. There is still talk of a $2 market, although the more conservative operators would be well content with the maintenance of the present level of $1.03. Prospects for the 1913 production in Oklahoma place the total at 63,842,259 barrels, while the 1912 output reached 56,069,637 barrels. The Cushing pool continues the scene of gusher wells, but the general production has lately shown a decline. In the Boston pool good wells are still coming in, the best running to 3,000 barrels daily. The Owasso pool offers little encouragement, the only possibility of an extension of the narrow producing limits being to the north-east. The Newkirk pool is making good, several fine wells adding to the daily yield, but without effect upon the general boundaries of the district.

### Refined Products.

The local market for illuminating oils has reflected the usual effects of the holiday season and there has been little to vary its routine course over the week. The export movement comprised a heavier aggregate, 12,943,790 gallons, as compared with 9,361,965 gallons previously, but the availability of a larger number of the tank fleet has been the factor for the more favourable showing of the current shipments 9,976,000 gallons were in bulk, while for the former week they were 4,657,025 gallons. The year's local export record promises to fall considerably below that of its predecessor, the present comparison based on fifty-one weeks' statistics being 504,885,310, against 554,857,705 gallons. The disparagement is less marked in the comparison of totals for all ports in our statistical summary, 904,501,277 against 921,827,666 gallons. The only charter booked during the week was one for 160,000 cases from Port Arthur to the Philippines and Far East, basis 23c., one port, January. Quotations have been subjected to no variation and the general market continues to reflect a nominally steady tone. Nothing of particular interest has featured the foreign markets during the interval and quotations have remained unaltered at the leading quarters.

CLOSING QUOTATIONS.

Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1912. Dec. 27. | 1913. Dec. 27. |
|---|---|---|
| Pennsylvania ... ... ... ... | $1.60 | $2.50 |
| North Lima ... ... ... ... | 1.01 | 1.39 |
| South Lima ... ... ... ... | 0.99 | 1.34 |
| Indiana ... ... ... ... ... | 0.99 | 1.34 |
| Illinois, above 30 degrees ... ... | 0.87 | 1.30 |
| Kansas and Oklahoma ... ... ... | 0.70 | 1.03 |
| Humble, Tex. ... ... ... ... | 0.75 | 0.90 |
| Saratoga ... ... ... ... ... | 0.75 | 0.90 |
| Sour Lake, Tex.... ... .. ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| ,, Kern River heavy ... | 0.35 | 0.35 |
| Canadian Oil ... ... ... ... | 1.44 | 1.79 |

Refined—For Export.

| In cents. | | Week ended Dec. 27. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·00 | 6·00 |
| Barrels, New York, cargo ... | ... | 8·70 | 9·70 |
| Barrels, Philadelphia ... ... | ... | 8·70 | 9·70 |
| Cases, New York ... ... | ... | 11·00 | 12·00 |
| Cases, Philadelphia ... ... | ... | 11·00 | 12·00 |

Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... .. ... ... | 29½ |

Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½-9 |

TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1913. Gallons. | Since Jan. 1, 1912. Gallons. |
|---|---|---|---|
| Crude ... ... | 2,562,000 | 207,370,883 | 116,619,375 |
| Refined ... ... | 22,989,230 | 904,501,277 | 921,827,666 |
| Naphtha ... | 1,092,390 | 116,778,023 | 121,134,358 |
| Gas oil ... ... | 2,570 | 34,369,155 | 60,513,795 |
| Fuel oil... ... | 116,750 | 121,818,439 | 106,488,245 |

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co, 61, St. Mary Axe, E.C.

January 16th, 1914.

The prices of Refined Petroleum are unchanged as follows :—Roumanian, 8d. ; Russian, 8½d.; Galician, 8d. ; American, 8½d. ; American Water White, 9½d.

### LUBRICATING OILS

There are no changes, official quotations being for :—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 12s. 6d.
American dark, from £11. 2s. 6d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL

The current price is 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 80s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

The retail price in London for the best quality is 1s. 9d. and for the second quality 1s. 7d. per gallon.

### TURPENTINE.

The American Turpentine market is very firm, quotations for spot, 32s. 7½d.; February/April, 33s. ; May/August, 34s.

## LIVERPOOL.

January 14th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, December 17th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... | 5 | 8 | 0 |
| Anchor cases, per case ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... | 4 | 15 | 0 |
| Chukker, per two tins ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... | 0 | 3 | 0 |
| ,, Candles, per pound ... | 0 | 4 | 0 |

## AMERICA.

New York, January 14th.

Refined, in cases, is quoted at 11·25 ; Standard White, 8·75 ; Credit balances, 2·50.

Philadelphia, January 14th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, January 13th.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, January 13th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 37–37½ copecs per pood spot. Kerosene, 46–47 copecs. Residuals, 36¼–36½ copecs.

## ROUMANIA.

January 13th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | | | Francs. |
|---|---|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | | | Bushtenari | 8·10–8·20 |
| ,, | ,, | ,, | Moreni ... | 7·00–7·80 |
| ,, | ,, | ,, | Tzintea ... | 5·50–6·25 |
| ,, | ,, | ,, | Policiori... | 6·00 |
| ,, | ,, | ,, | Bana ... | 9·50–10·80 |
| Paraffin ... | | | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... | 7·00– 7·50 |
| Gas Oil... | 8·00 |

## AUSTRIA.

January 13th.

Crude oil is quoted 8·58 kronen spot. Kerosene, 29½–30 kronen at Oderberg. Benzine, 690/700, 47 kronen ; 700/710, 45 kronen, at Oderberg. Gas oil, 7·50–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date January 15th as follows :—

The market is quiet, and prices are unchanged at last week's rates, viz. :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 13/4½ per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... | 18/6 ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED JANUARY 12TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Jan. | LONDON— | | | |
| 6 | Ragosine & Co. | Lub. | 5,480 | New York |
| 6 | Anglo-American Oil Co. | ,, | 91,200 | ,, |
| 6 | Produce Brokers Co. | ,, | 5,000 | ,, |
| 6 | Langley, Smith & Co. | ,, | 7,540 | ,, |
| 6 | Mercantile Lighterage Co. | ,, | 17,400 | ,, |
| 6 | British Petroleum Co. | Gas | 1,503,000 | Port Arthur |
| 6 | A. E. Smith | Lub. | 480 | Marseilles |
| 6 | Port Authority | ,, | 360 | Antwerp |
| 6 | ,, | ,, | 420 | Hamburg |
| 7 | ,, | ,, | 3,270 | ,, |
| 7 | Hanseatic Maritime Agency | ,, | 120 | Bremen |
| 7 | Union Lighterage Co. | Gas | 203,000 | Port Arthur |
| 8 | J. Thompson | Lub. Gr. | 5,820 | New York |
| 8 | Anglo-American Oil Co. | ,, | 800 | ,, |
| 8 | J. Spurling | ,, | 405 | ,, |
| 8 | H. P. Wheatley & Co. | Lamp | 13,440 | Port Arthur |
| 8 | Port Authority | Lub. | 420 | Antwerp |
| 8 | Hanseatic Maritime Agency | ,, | 300 | Bremen |
| 8 | ,, ,, | ,, | 40 | ,, |
| 8 | Asiatic Petroleum Co. | Benzine | 5,000 | Rotterdam |
| 8 | Gerhard & Hey | ,, | 60 | Libau |
| 9 | Anglo-American Oil Co. | Naphtha | 1,907,310 | Novorossisk |
| 9 | ,, ,, | Lub. | 752,910 | New York |
| 9 | ,, ,, | Lamp | 2,083,550 | ,, |
| 9 | Vacuum Oil Co. | Lub. | 11,220 | ,, |
| 9 | Port Authority | ,, | 6,300 | ,, |
| 9 | Mordaunt Bros. | ,, | 6,300 | ,, |
| 9 | Port Authority | ,, | 2,600 | Philadel. |
| 10 | ,, | ,, | 3,600 | Hamburg |
| 10 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 1.990 | ,, |
| 10 | British and Foreign Wharf | Lub. | 250 | Antwerp |
| 10 | R. T. Lucas & Co. | Lub. Gr. | 540 | New York |
| 12 | A. Duckham & Co. | ,, | 2,600 | ,, |
| 12 | London & Thameshaven Oil Wharves | ,, | 5,200 | Baltimore |
| 12 | E. G. Boize | Lub. Oil and Gr. | 240 | Hamburg |
| 12 | ,, | ,, | 1,030 | ,, |
| 12 | Mordaunt Bros. | Lub. | 4,200 | ,, |
| 12 | Craven & Co. | ,, | 240 | ,, |
| 12 | N. J. Fenner & H. B. Alder & Co. | ,, | 240 | Ghent |
| 12 | Leach & Co. | ,, | 240 | ,, |
| | LIVERPOOL— | | | |
| 6 | Great Western Railway | ,, | 3,000 | N. Orleans |
| 6 | ,, ,, | ,, | 2,000 | Ghent |
| 6 | H. Parry | ,, | 120 | Hamburg |
| 8 | Vacuum Oil Co. | Lub. Gr. | 440 | Rotterdam |
| 8 | Burnaby & Chantrell | ,, | 1,740 | New York |
| 8 | White Star Line | Lub. | 1,400 | ,, |
| 8 | J. Light & Son | ,, | 4,000 | ,, |
| 8 | Bowring Petroleum Co. | ,, | 2,750 | Philadel. |
| 9 | Worthington & Boler | ,, | 6,200 | ,, |
| 9 | Bowring Petroleum Co. | ,, | 1,660 | ,, |
| 9 | Meade-King, Robinson & Co. | M. Colza | 5,200 | ,, |
| 9 | D. Owen & Son | Lub. | 2,950 | ,, |
| 9 | Vacuum Oil Co. | ,, | 12,000 | ,, |
| 9 | ,, ,, | Lamp | 12,000 | ,, |
| 9 | ,, ,, | Lub. | 11,530 | New York |
| 9 | ,, ,, | Lub. Gr. | 4,480 | ,, |
| 9 | D. Owen & Son | Lub. | 4,850 | ,, |
| 9 | Anglo-American Oil Co. | ,, | 19,000 | ,, |
| 9 | ,, ,, | Lub. Gr. | 3,440 | ,, |
| 9 | Lancs & Yorks Railway | Lub. | 200 | ,, |
| 9 | Bramwell, Fern & Co. | Lub. Gr. | 550 | ,, |
| 9 | Liverpool Warehousing Co. | Lub. | 3,600 | ,, |
| 9 | Burnaby & Chantrell | Lub. Gr. | 5,330 | Baltimore |
| 9 | Meade-King, Robinson & Co. | M. Colza | 18,200 | ,, |
| 9 | A. Hopps & Sons | ,, | 5,200 | ,, |
| 9 | ,, ,, | Lub. | 21,280 | .. |
| 9 | Pickford's | Lub. Oil and Paste | 560 | Hamburg |
| 10 | Crew, Levick & Co. | Lub. | 75,290 | Philadel. |
| 10 | ,, ,, | ,, | 6,300 | ,, |
| 10 | Bennett's Haulage, etc., Co. | ,, | 9,130 | ,, |
| 10 | Anglo-American Oil Co. | Lub. Gr. | 800 | ,, |
| 10 | ,, ,, | Lub. | 11,200 | ,, |
| 10 | American Line | ,, | 4,160 | ,, |
| 10 | White Star Line | ,, | 12,400 | New York |
| 10 | Meade-King, Robinson & Co. | ,, | 7,800 | Baltimore |
| 12 | Crew, Levick & Co. | ,, | 610 | Philadel. |
| 12 | E. Harrison & Co. | ,, | 12,000 | ,, |
| 12 | Meade-King, Robinson & Co. | ,, | 31,080 | ,, |
| 12 | W. D. Schofield | Resid. | 5,280 | N. News |
| 12 | Pickford's | Lub. | 120 | Antwerp |
| 12 | Penwarden & Jackson | ,, | 1,130 | ,, |
| Jan. | BARROW— | | | |
| 10 | Asiatic Petroleum Co. | Benzine | 812,000 | Singapore |
| | BOSTON— | | | |
| 9 | W. F. Beaumont | Lub. | 210 | Hamburg |
| | BRISTOL— | | | |
| 6 | J. R. Bush | ,, | 52,440 | New York |
| 6 | First Anglo-Russian Oil Co. | ,, | 2,610 | ,, |
| 8 | ,, ,, | ,, | 250 | Hamburg |
| 8 | Traders' Supply Society | Spirit | 9.000 | Brailion |
| 10 | E. Stock & Sons | Lub. | 120 | Hamburg |
| 10 | F. F. Fox & Co. | ,, | 240 | ,, |
| | GLOUCESTER— | | | |
| 10 | Bristol Steam Navig. Co. | ,, | 2,560 | ,, |
| | GRIMSBY— | | | |
| 6 | J. Sutcliffe & Son | ,, | 50 | Antwerp |
| 9 | ,, | ,, | 50 | Hamburg |
| 9 | ,, | ,, | 1,000 | Antwerp |
| | HARWICH— | | | |
| 6 | Great Eastern Railway | ,, | 650 | ,, |
| 8 | ,, ,, | ,, | 320 | ,, |
| 10 | ,, ,, | ,, | 280 | ,, |
| | HULL— | | | |
| 8 | T. Wilson, Sons & Co. | ,, | 26,220 | New York |
| 8 | Wilson's & N. E. Railway | ,, | 2,000 | Hamburg |
| 8 | ,, ,, | ,, | 1,640 | Antwerp |
| 12 | ,, ,, | ,, | 240 | ,, |
| 12 | ,, ,, | ,, | 1,320 | Hamburg |
| | MANCHESTER— | | | |
| 6 | W. Hodgson & Co. | ,, | 9,840 | New York |
| 6 | Anglo-American Oil Co. | ,, | 135,300 | ,, |
| 6 | Meade-King, Robinson & Co. | ,, | 2,800 | ,, |
| 6 | Fellows, Morton & Clayton | ,, | 1,000 | ,, |
| 7 | Bramwell Fern & Co. | ,, | 4,400 | Philadel. |
| 7 | British Petroleum Co. | Lamp | 695,000 | Port Arthur |
| 8 | Crew, Levick & Co. | M. Colza | 1,250 | Philadel. |
| 8 | ,, | Lub. | 16,560 | ,, |
| 8 | Liverpool Storage Co. | ,, | 1,920 | ,, |
| 8 | Meade-King, Robinson & Co. | ,, | 48,840 | . |
| 8 | Fellows, Morton & Clayton | ,, | 3,910 | ,, |
| 9 | Anglo-American Oil Co. | ,, | 36,080 | ,, |
| 9 | Bramwell, Fern & Co. | ,, | 34,320 | ,, |
| 10 | D. Currie & Co. | Lub. Oil and Gr. | 2,830 | Hamburg |
| | PORTSMOUTH— | | | |
| 12 | Bristol Steam Navig. Co. | Lub. | 70 | ,, |
| | SWANSEA— | | | |
| 8 | M. Jones Bros. | ,, | 290 | Bergen |
| 9 | R. Turpin & Co. | ,, | 2,800 | New York |
| 10 | Burgess & Co. | Lub. Gr. | 1,900 | Hamburg |
| | GLASGOW— | | | |
| 6 | Clyde Shipping Co. | Lub. | 1,380 | Antwerp |
| 7 | ,, | Lub. Gr. | 40 | ,, |
| 7 | Maclay & MacIntyre Co. | Lub. | 5,660 | N. Orleans |
| 9 | Allan Bros. & Co. | Lub. Gr. | 1,400 | Philadel. |
| 9 | ,, | Lub. | 35,760 | ,, |
| | GRANTON— | | | |
| 8 | Asiatic Petroleum Co. | Benzine | 434,000 | Rotterdam |
| | GRANGEMOUTH— | | | |
| 8 | Jas. Rankine & Sons | Lub. | 4,620 | Antwerp |
| 10 | ,, ,, | ,, | 1,970 | Rotterdam |
| 12 | Jas. Currie & Co. | ,, | 400 | Hamburg |
| | LEITH— | | | |
| 6 | G. Gibson & Co. | ,, | 120 | Antwerp |
| 8 | Jas. Currie & Co. | ,, | 4,000 | Hamburg |
| 12 | G. V. Turnbull & Co. | Lub. Oil and Gr. | 11,810 | Philadel. |
| 12 | G. Gibson & Co. | Lub. | 600 | Antwerp |
| | BELFAST— | | | |
| 8 | J. C. Pinkerton & Co. | Lub. Oil and Gr. | 1,000 | Hamburg |
| | | | 9,397,140 | |
| | Deduct— | | | |
| | HULL— | | | |
| 17/12 | W. Gilyott & Co. | Lub. | 760 | New York |
| 17/12 | T. Wilson, Sons & Co. | ,, | 4,000 | ,, |
| | | | 9,392,380 | |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**The Cheapening of Oil Fuel.**

WITH the cheapening of liquid fuel on the one hand and the increased cost of coal on the other, it appears that the time is not far distant when liquid fuel in this country will make remarkable headway, especially in connection with marine work. Our readers are well aware of the two primary factors which have for a long time past stood as very effective stumbling-blocks to the more general adoption of oil fuel in this country. First, there is the phenomenally high cost of the oil itself in the centres of production: then, secondly, there are the abnormal freight rates which have been ruling for ocean transport for the past two or three years. In fact, it has been the latter fact which has practically put oil fuel outside the sphere of adoption except in a few special cases. Of late, however, freight rates have substantially dropped, and to-day are almost one half what they were eighteen months ago, and the general opinion is that they will still further decrease until they assume quite a normal character. Should this be so, one may expect quite a boom in the extending use of oil fuel in this country, more especially in the industrial centres where its advantages are thoroughly appreciated.

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**The Land of Marvellous Oil Wells.**

MEXICO is assuredly making an enviable name for itself as the land of remarkable oil wells. Ever since serious development work was undertaken for oil in the Republic the striking of wells of the gusher type has been almost a matter of course. As our readers are aware, large numbers of these have been brought in which have been good for a daily production of some thousands of barrels, while geysers of the type of the world-famous "Potrero" have given to Mexico the well-earned title of being the most prolific oil country yet developed in any part of the world. Only this week another phenomenal oil well has been struck, this time on the property owned by the "Shell" interests. Though the initial flow was not particularly large for good Mexican wells, the oil pressure steadily increased until it is said the well threw out as much as 100,000 barrels of oil in a single day. To the credit of the field staff be it said that the wild well was capped, so that to-day its production is being stored. Even Russia, with its great spectacular shows of oil fountains of the past, must now stand second to Mexico.

◆

**The Fight for Peru Oilfields.**

THERE is every likelihood of a sharp fight between American and British interests for the control of the oil industry in Peru, and at the present time not only are two definite purchasers on the scene, but the REVIEW learns that pressure is being brought to bear in official circles in order that the American Government may dissuade Peru from granting any more of its oil concessions to any but a home corporation. As years pass, the importance of the Peruvian oilfields becomes more apparent, but with the opening of the Panama Canal their value must appreciate in a marked degree, for owing to the geographical position of the fields the facilities for easy and comparatively cheap marketing are certain to be availed of to their fullest extent. So far it has been mainly left to English interest to develop Peru's oil regions, and in this respect the London and Pacific Petroleum Company, Ltd., stands in the forefront. It has also for some time been evident that an important move was contemplated for the acquisition of large oil-bearing territories in the State by Lord Cowdray's interests, and this has to-day so far advanced as to permit the name of the contracting company to be published. The appearance of the Standard Company's officials on the scene with a counter-proposal, however, has at once added considerable interest to the matter, of which we shall hear more in the near future.

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**America's Expanding Foreign Oil Commerce.**

THE export trade of the United States in regard to petroleum products continues to steadily expand, and with the figures just published showing the shipments abroad during November, it is possible to give the official totals of oil exports for the eleven months of 1913. In all America exported during that period 1,892,000,000 gallons of petroleum products, valued at $133,500,000 as compared with 1,701,000,000 gallons and $112,000,000 for the corresponding period of the preceding year. Thus the gain in volume is over 11 per cent. and in value 19 per cent—a circumstance which must be very gratifying in view of the fact that to-day oil developments in the American fields are only set back by reason of the lack of adequate foreign outlets for the various refined products.

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## "THE OILFIELDS OF CANADA."

WE understand that a lecture was delivered in the banqueting hall of De Keyser's Hotel, E.C., on Wednesday, by Mr. E. H. Cunningham-Craig, B.A., who was entertained by the Royal Colonial Institute, the lecture having special reference to the oilfields of Canada, and particularly the Alberta district. Inasmuch as the ordinary press courtesy of an invitation was not extended to the REVIEW, we do not feel inclined to publish a report of the lecture although copies of the same were obtainable beforehand.

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## SERVIA'S PETROLEUM MONOPOLY.

THE "*Kuxen-Zeitung*" gives some data respecting the petroleum monopoly in Servia. For the eleven months of last year the income from the petroleum monopoly was 5,451,007 francs, or 50 per cent. more than the previous year.

◆

## THE AMALGAMATION OF J. A. AKVERDOFF COMPANY AND G. S. DEMBOT.

NEGOTIATIONS are being concluded for the amalgamation of the well-known petroleum enterprise of G. S. Dembot with the Belgium petroleum company Messrs. J. A. Akverdoff & Co., the latter possessing one of the richest petroleum fields in Russia, with a production of over 40,000,000 poods a year. The new enterprise is being financed by a group of Belgian banks, with the Credit International Industriel at the head. Until lately Messrs. Akverdoff & Co. have been selling their petroleum products to Messrs. Nobel, Bros. and the Mazout Co. The new enterprise, however, intends to sell its products direct to the consumer, for which purpose it will establish petroleum installations in many centres of Russia. The new firm will also exploit the whole fleet of tankers on the Caspian Sea and Volga, also the tank waggons, which are being taken over from Messrs. Dembot.

In addition several Russian wharves and engineering works have already been ordered, also many new tankers, barges and tank waggons.

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**Natural Gas at Ploesti.**—Mr. M. J. Koppes, at Ploesti, has obtained a concession for twenty years to distribute natural gas escaping from the wells in this petroliferous district to the factories and works at Ploesti. A special net of pipelines will connect the town of Ploesti with the Moreni fields, which form the largest supply of natural gas.

RESPONSIBLE SITUATION DESIRED.

A GENTLEMAN, recently returned from the Far Eastern oilfields and having wide experience in the administration on oil properties, is now at liberty to negotiate with first-class petroleum exploiting companies with a view to taking sole charge of their operations.—Apply in first instance, "Englishman," care of REVIEW offices, 45, St. Mary Axe, E.C.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 17th was 125,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended January 18th was 278,465 poods, or about 4,491 tons. The total production for the year from January 14th to January 18th was 198,720 poods, or about 3,205 tons. The total production for the corresponding period last year was 190,080 poods, or about 3,066 tons. Price of crude oil at Baku is now 36¾ copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. -- The production of crude oil for week ended January 17th was 19,970 poods, or 322 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended January 18th was 105,000 poods, or 1,693 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended January 17th was 127,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended January 17th was 22,209 poods (358 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended January 17th was 6,000 poods (97 tons).

BRITISH MAIKOP OIL COMPANY, LTD.— Production for week ended January 11th was 15,815 poods, or 255 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.— Gross production for week ended January 10th, 99,900 poods, or 1,611 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The latest production for week ended January 13th was 391,393 poods, or 6,313 tons. Corresponding period last year, 1,610 tons.

BIBI-EIBAT PETROLEUM COMPANY, LTD.—Production for the week ended January 11th was 102,733 poods, or 1,657 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended January 17th was 3,800 poods, or 61 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended January 17th was 13,944 poods (225 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended January 17th was 1,035 poods (17 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.— Production of crude oil for week ended January 17th was 2,400 poods, or 39 tons.

CHELEKEN OILFIELDS, LTD.—Production for fortnight ended January 17th was 1,561 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street).
ESTABLISHED 1856.
Telephone City 8840 (4 lines).
LONDON, E.C.

# The Forthcoming International Oil Exhibition.

## INTERVIEW WITH THE GENERAL ORGANISER.

In a couple of months' time the World's Oil Industries Exhibition will be merrily running its course at Earl's Court, S.W., and it is no exaggeration to say that that famous pleasure spot will then be the rendezvous of oil men from all quarters of the two hemispheres.

In view of the nearness of the holding of the Exhibition, our representative sought out the General Organiser—Mr. G. D. Smith—a few days ago in order to gather some further information concerning the forthcoming great show, as a result of which the Review is in a position to publish several details which hitherto have been known to but a select few.

The conversation first turned upon the exhibits and he amount of practical support which had already een received from British, American and Continental anufacturers. "Well," said Mr. Smith, "I am pleased o say that the Exhibition is shaping itself up remarkbly well, and I am looking forward to having a horoughly representative show, which I believe will ully tax the space accommodation in the Queen's alace, which is by far the largest of the spacious uildings comprising the Earl's Court Exhibition. any of the large firms booked space several onths ago, but it has only been since the turn of the ear that there has really been a healthy rivalry in the pplications for exhibiting space."

"There is a determined desire among manufacturers atering for the needs of the petroleum industry not o be left out." Continuing, Mr. Smith said the list of irms already booked up contained the names of the ost influential concerns associated with the petroleum ndustry, and it was safe to say that every phase of he oil trade would be well represented.

"The oil-well supply firms would be represented by nglish, American, and Continental interests, the oil roducing and distributing interests were giving their hole-hearted support, and, in fact, practically every ranch of the oil industry would be represented by ood firms."

As to the exhibits in the grounds, he had been able arrange for visitors to have the opportunity of seeing n oil-drilling outfit actually at work on a well, while the Exhibition building itself, machinery would be motion. A special space had been allotted to the anufacturers of oil engines and several types of such ngines would be at work, while he was also perfecting rrangements whereby a special section would be evoted to the exhibition of various systems of oil ghting.

"What is expected to be a specially interesting rtion of the Exhibition," continued the General rganiser, "will be the Refining Section, where, we ave reason to believe, there will be some most tractive exhibits, one of which will be the extraction oil from carbonaceous substances, sludge, etc."

"The educational side of the Exhibition," said r. Smith, "was certainly going to be one of the chief features, as it was one of the most interesting features of the last Exhibition. The final arrangements for the holding of the conference of the International Committee on the standardisation of petroleum products were now being concluded through Dr. Dvorkovitz, and he was daily expecting further word from Prof. Ubbelohde that everything was in order for the Earl's Court Conference.

"The lectures were also being arranged so that, upon practically every evening during the run of the Exhibition, prominent gentlemen associated with various branches of the petroleum industry, both in this and other countries, would deal with the different aspects of the subject. In this respect, a large number of lectures had already been secured.

"There is no doubt," said Mr. Smith, "that the course of lectures, together with the fact that the Petroleum Standardisation Conference will meet during the Exhibition, will be an important feature, but yet, so far as the average visitor is concerned, I am looking to the series of cinematograph films, which will be given daily in one of the adjoining halls, to be a splendid attraction. I have been engaged upon perfecting this educational side of the show ever since I came back from the United States, and I think you can now publicly state that the series of films which will be shown will be a regular 'eye-opener' even to many who are associated with various branches of the petroleum industry. Naturally they will be films exclusively dealing with matters in connection with the oil industry. We shall have a film showing the ordinary operations on the oilfields themselves: there will be the launching of oil tankers, and pictures actually showing the discharging of the oil pumps upon some of those mammoth oil tankers now engaged in the Mexican petroleum export trade. Even now," added Mr. Smith, "my arrangements are not complete in this respect, but you may depend upon it that the cinematograph displays will be in entire keeping with an Exhibition which is intended to represent and reproduce all phases of the world's petroleum industry.

"And what of space?" our representative queried.

"Well," answered the General Organiser, "there is still space to be let, but day by day this is decreasing in size, and I have no doubt that before the opening day the immense hall will be comfortably filled. Let me add," continued Mr. Smith, "I am making a special feature also of the Loan Section, and comprehensive as this was on the first occasion, it will be far more attractive when we open our doors at Earl's Court."

Mr. Smith then dwelt upon the question of music in the Exhibition Hall, and pointed out that the first suggestion of having a really good military band had been modified, inasmuch as the noise might be of some annoyance to the exhibitors, who would naturally desire to discuss business matters with their customers. Instead, however, he had decided to secure an excellent string orchestra, and in this respect he had been singularly fortunate.

"As to the opening ceremony, we are bound to have a very good send-off, for I am in negotiation with —— well, I had better not say too much just now, but you need not be afraid of the success of the forthcoming show

# MISCELLANEA.

## LIQUID FUEL APPARATUS FOR THE GERMAN AND RUSSIAN NAVIES.

THE firm of Messrs. Gustav Moll, at Neubeckum, has received an order for 1,400,000 marks of liquid fuel burners and appliances from the various shipbuilding yards, to be used in a number of cruisers and torpedo boats which are on order for the Imperial German Navy and the Imperial Russian Navy. Most of the orders are on behalf of the Russian Navy.

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## THE MERITS OF LIQUID FUEL OVER COAL.

THE relative merits of coal and liquid fuel for ships were fully discussed in an address before the Association of Passenger Steamboat Lines, which held a convention at Washington recently.

In an address before the Association by Mr. L. O. Lovekin, chief engineer of the New York Shipbuilding Company, the points in favour of the use of liquid fuel were set forth in technical form, practically every point being made in favour of oil as against coal.

While this address on the subject was chiefly technical, says *The Oil Paint and Drug Reporter*, it dealt with the comparative heat units in coal and oil and the best systems for burning the oil. The speaker declared that the use of oil on ships saved time and expense, and was much cleaner in every way than coal. The amount saved through the use of oil differed, he declared, in various localities and under different conditions. He expressed the opinion, however, that the price of crude oil had reached its highest point, and if there was to be any change in the price it would be lower.

Oil could be loaded on ships at a great saving in time and the services of fewer firemen would be required. With an oil-burning ship one fireman could look after twelve fires very easily. There is absolutely no danger from the use of oil, he declared, and as for odour, there need not be any. To illustrate the point that there is no danger, he declared that if one went into the fireroom of a vessel and saw a fireman lighting his fires with a handful of waste and putting the fire out on the waste by immersing it in a bucket of oil, "it would probably cause a scare, but, as a matter of fact, it is a common occurence because there is absolutely no danger."

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## THE QUESTION OF MOTOR FUEL AND THE FRENCH NATIONAL FUEL COMMITTEE.

THE French National Fuel Committee recently discussed the question of motor fuel, and Mr. M. Guiselin read a very interesting paper on the future situation of the petroleum market, from which we take the following extract :—

The world's production of petroleum includes the products obtained in Russia, Roumania and America. The Russian production of crude oil, which at its beginning increased very rapidly, has during the last few years remained stationary, and even shows a tendency to decrease. This is not due to the exhaustion of the underground strata, but is simply the consequence of a series of various events, which must change in the near future. The country which now yields the largest production of petroleum is California.

Unfortunately, the Californian oil contains very little or practically no light products, and does not yield in the process of distillation any motor spirit. While the increase in the quantity of petroleum produced annually all over the world is but slight, the consumption on the contrary rapidly increases.

This is especially the case as regards motor spirit, and the question of the supply of such has become very acute, but at the same time there is no deficiency in remedies to obviate this state of things.

Mr. Guiselin has calculated that the quantity of motor spirit which theoretically can be extracted from petroleum is five or six times more than the actual consumption. The increase in the prices of motor fuel is ascribed by Mr. Guiselin to artificial circumstances and also to the increase in the freights. The owners of tankers, owing to the deficient number of such, are drawing exorbitant profits in their trade, but at present more tankers are being constructed, and the cost of transport will naturally have to go down.

On the other side scientists in all countries are now occupied in trying to discover new motor fuels, and recently several important inventions have been made. In the future benzol and alcohol will come to the front, as being cheap and convenient motor fuels. Another remedy for improving the situation is in the use of heavier oils for motor purposes, such as kerosene, and it is undoubtedly a fact that successful attempts in perfecting inner combustion engines for use of kerosene are being made, and we are not far from the time when proper engines for the satisfactory use of kerosene as motor fuel will be on the market.

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# THE LOBITOS OILFIELDS, LTD.

## RESULTS OF DEEP BORINGS IN THE PERUVIAN FIELDS.

By RICARDO A. DEUSTUA.

*Reprinted from* "PERU TO-DAY."

(*Concluded from page* 80.)

OFTEN in the same oil-bearing region there are not two wells which can be taken as a gauge for a third, unless the earth structure in which the wells are located is perfectly known, the order of the different strata, their direction, depth, etc. And yet all of these difficulties are of minor importance compared with the trouble frequently encountered in carrying the boring beyond 2,000 ft. without deviation from its course or without loss of some of the tools used in the operation. The time required in sinking the shaft depends not only upon the skill of the operator, but also upon chance, for when a drill head or other tool is lost it is necessary to fish for it, an operation which may require six or eight months, as happened in one instance in the Lobitos fields. For this reason it is impossible to fix the cost of deep borings at an average per foot, everything depending upon the number of difficulties encountered in each operation. For example, in the drilling of well No. 166, dealt with above, which was carried to depth of 3,435 ft., and required seventeen months' labour, the cost of £7,237.8.85 was distributed as follows:—

| | |
|---|---|
| Cost of derrick and equipment, with boiler, motor, drilling tools, etc. ... ... ... | £4,170.3.07 |
| Cost of drilling, including transportation, erection, and removal of machinery, labour, etc. ... ... ... ... ... ... | 1,609.5.88 |
| Cost of fuel consumed, 400 metric tons at £2.0.00 ... ... ... ... ... ... | 800.0.00 |
| Total ... ... ... .. ... | £6,579.8.95 |
| Cost of administration, 10 per cent. of the foregoing ... ... ... ... ... | 657.9.90 |
| Total cost of sinking the well ... | £7,237.8.85 |

The cost of boring per foot in the present case amounted to £2.1.07, or, in round numbers, £2.0.00; that is, taking into account the value of the equipment, which amounted to £4,170.3.07, and which could be used practically entire for operations elsewhere. But if the value of this equipment is eliminated, less 25 per cent. for wear and tear, then the cost of drilling for the well in question can be taken as £3,797.3.82, or £1.1.05 per foot. From this exposition it will be possible to fully understand the great risk which the company is running in declaring for a policy of sinking deep wells; but, great as this risk has proved to be in the case of the wells described, on the other hand, there are others, such as wells Nos. 100 and 169, the returns from which are so high that they warrant the expenditure necessary in carrying out such a policy. The non-productive shaft, No. 166, of 3,435 ft. in depth, is the deepest oil bore, not only in Lobitos, but in all South America.

The Lobitos Company, up to date, has sunk 200 wells, of which 105 are actually producing and 79 have been abandoned through decrease in production, while the remaining 16 are being drilled. The number of feet drilled annually fluctuates between 25,000 and 30,000, but during the last year borings were completed in excess of 41,686 ft., or 13,520 more than in 1911, when the number of feet bored amounted to only 28,166; that is, in 1912 the boring operations of the Lobitos Company averaged 116 ft. daily, the highest figure attained by any of the oil companies operating in Peru.

These boring operations were distributed among the wells being exploited in the Lobitos fields proper, and the exploration work being carried out in Restin, in the Cabo Blanco zone, Province of Payta; in Grillo ravine, in the Sechurita zone, and in El Hervidero, Bocapán zone, both in the Province of Tumbes, that is, north of the first-named zone.

In Restin, along the beach, thirteen miles to the north of Lobitos Bay, various wells have been sunk, of which two of them have cut through layers of petroleum sands at comparatively shallow levels. At the present time another well is being sunk further towards the interior, in a ravine known as Amarillos, with the hopes of locating sands richer in filtrations. Proceeding up this ravine, the number of superficial indications of the existence of petroleum filtrations increases, the oil gathering in the natural wells and basins along the way. If the wells or basins are cleaned out they will fill up again within twenty-four hours. This petroleum is quite dense because of the lack of volatile substances, which are undoubtedly lost through evaporation. The similarity in the stratification and structural formation between the Restin and Lobitos zones and the data secured from the boring operations on the beach indicate that rich deposits of petroleum-bearing sand will be found at the 3,000 ft. level.

The wells sunk in the Grillo ravine, south of the Zorritos zone and east of the Sechurita zone, have failed to give satisfactory returns, in spite of the fact that they are located only a short distance from the latter zone, in which Faustino G. Piaggio & Co. have obtained highly successful results from wells sunk to a depth of between 2,000 and 2,500 ft. The derricks and other machinery were therefore transferred to Hervideo ravine, in the Bocapán zone, near a series of natural hot springs, having all the characteristics of the mud volcanoes found in the vicinity of the petroleum deposits of Baku, Kubán, Borneo, Sumatra, the coast of Burma and Trinidad; which has caused the conclusion to be drawn that petroleum deposits have an intimate relation with these phenomena. Similar hot springs exist in the La Brea zone, east of the Negritos and Talara fields. It was for these reasons, taken together with the natural structure of the region, which caused the Lobitos Company to undertake the exploration work. Unfortunately, however, the operations have been made extremely difficult owing to the force of the water encountered, which often rises above the mouth of the well to an elevation of a number of feet. The work is proceeding slowly, without having given any satisfactory results up to date. The well, at present, has a depth of 2,500 ft.

In accordance with the contract entered into with the Standard Oil Company, the Lobitos Oilfields have continued sending their crude product to the California refineries of the former concern. There are no refineries in Lobitos, but the petroleum exported from this region is of excellent quality for this purpose, but is not used directly as a combustible because of the high percentage of volatile substances which it contains. The Standard Oil Company has in return entered into a contract with the Lobitos Company for supplying the markets of Peru, Bolivia and Chile with petroleum fuel, which is brought by the tank steamers of the latter company on their return voyage, from California. These operations are conducted through the agency of a selling concern, known as The West Coast Fuel Company, Ltd., which was formed two years ago with a capital of £100,000. The importation of California oil for the Peruvian market now amounts to 48,000 metric tons annually, or 4,000 tons monthly, the larger part of which is destined for the consumption of the oil-burning steamers of the Peruvian Steamship Company. The price of this oil averages from 42 to 43 shillings a ton. Both in Payta and Callao there are large storage tanks, equipped with all of the modern facilities for purveying the oil to the steamers in a rapid and economic manner. The station at Payta is situated on the beach to the north of the port. This station consists of a tank with a capacity of 9,500 metric tons, constructed at an elevation of 300 ft. above the level of the sea. On the margin of the beach a power pump has been installed, which forces the petroleum from the tank steamers to the storage tank at the rate of 170 tons pet hour. Both the intake and outflow pipes are carried out to a buoy or floating island in the bay, located in sufficiently deep water to allow steamers to approach it for the purpose of loading or unloading oil. The installation of this station cost £12,000; a similar station has been installed in the port of Callao and another has been projected for the port of Ilo. The West Coast Fuel Company also has installations in the Chilean ports of Junnin, Tocopilla, Antofagasta, Taltal and Iquique. Another installation is projected for Valparaiso. A station has also been constructed in Arica for the supply of the Arica-La Paz railway and the mineral region of Corocoro.

The relations between the Lobitos and the Standard Oil Companies for the importation and exportation of petroleum on the coast have resulted in the formation of a fleet of tank steamers by the first company. This fleet is composed of three large steamers, *El Lobo*, *El Toro*, and *El Zorro*: the first with a capacity of 6,500 tons and the two last with a capacity of 8,000 metric tons each. There are in addition two smaller steamers, *El Aramac* and *El Lobito*, of 70 and 80 tons register, destined for coasting service; and several sloops and motor launches for local service. The total capacity of all the storage tanks owned by the Lobitos Company is 30,000 metric tons.

The total registered production of the Lobitos oilfields during the last seven years of its existence is as follows:—

| | Metric Tons. |
|---|---|
| 1906 ... ... ... ... | 19,576 |
| 1907 ... ... ... ... | 27,821 |
| 1908 ... ... ... ... | 42,653 |
| 1909 ... ... ... ... | 57,226 |
| 1910 ... ... ... ... | 53,344 |
| 1911 ... ... ... ... | 52,172 |
| 1912 ... ... ... ... | 78,273 |

With the exception of the years 1910 and 1911, in which a decrease in the production is noted, the increase has been steady and appreciable. All of this production comes from only ten *pertenencias* (a *pertenencia* is the unit of a Peruvian placer, coal or petroleum claim, 200 by 200 metres, equal to 9·88 acres).

The company has in all 1,030 registered *pertenencias* of which 111 are scattered along the coast line of the Province of Tumbes, north of Lobitos, and the remainder, 919 *pertenencias*, are in the Province of Payta, concentrated principally in the Lobitos and Cabo Blanco zones. The holding of these claims represents for the company an annuel expenditure of £3,090 in taxes, that is £3 per *pertenencia*.

The subscribed capital of the Lobitos Oilfields is £400,000, divided into shares of £1 each. The quotation of these shares on the London Stock Market is from 27 to 28 shillings.

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# FUEL OIL FOR THE AMERICAN NAVY.

THE Secretary of the American Navy in taking up the question of fuel oil for the navy in his annual report sent to Congress deals with the subject as follows :—

I desire to recommend to Congress the immediate consideration of providing fuel oil for the navy at reasonable rates, and the passage of legislation that will enable the department to refine its own oil from its own oil wells and thus relieve itself of the necessity of purchasing what seems fair to become the principal fuel of the navy in the future, at exorbitant and ever-increasing prices, from the private companies that now completely control the supply. This matter has been given thorough consideration by the department and, while I am not prepared at this time to recommend the exact shape this legislation should take, it is my earnest wish that the subject receive immediate and serious consideration, as it is a matter, in my judgment, of paramount importance. I will be pleased to communicate further with Congress on this subject at any time it may desire. It is sufficient to point out at this time that the superiority of oil over coal for naval purposes has already been demonstrated and is no longer a matter of experiment; that Great Britain is equipping her navy with oil-burning vessels of the first class; that the English Government is already spending $1,871,750 in the erection of enormous oil tanks; that, in addition, the scantily yielding oil-shales of Scotland are to be preserved for the use of the navy, and that in Mexico and elsewhere English firms are reaching out for oilfields from which to supply the demands of the English Navy. On the other hand, the price of oil is steadily creeping upwards, so that to-day the United States Navy is paying over twice as much for its oil as it did in 1911. The only relief possible from what will be a staggering item in the expense account of the navy in the future is in the control of oil wells and refining of its own oil by the Navy Department. This has been clearly foreseen by the English Government, and the Hon. Winston Churchill, first lord of the admiralty, recently declared in the House of Commons that it is necessary for the Royal Navy to establish refineries and handle its own oil transportation in order to secure the kind of oil it wants and reduce the burden of expense. If England, geographically handicapped, and with no large sources of supply within her own borders, has concluded that this is the wise and economic policy, how can the United States, with bounteous flowing oil wells on Government lands already existing, and with fields near to both the east and west coasts, escape the charge of wilful waste of public money if it continues to purchase oil at prices which may fatten the pockets of a few oil companies but which increases the burden of the taxpayer? With only a portion of our fleet equipped to burn oil the navy uses this year 30,000.000 gallons. There is every likelihood that this amount will be increased to 125,000,000 in the future. Every gallon of this must be purchased from the oil companies at their own price until Congress relieves the department by proper legislation.

The United States Navy has the enormous advantage enjoyed by no other nation, in that great oilfields exist in our own country close to the Atlantic Ocean, Gulf of Mexico, and Pacific Ocean, so that the supply of oil is assured. It is natural, for this reason, that the United States should take the lead in adopting the exclusive use of oil fuel and thereby reap the benefits of its many advantages in ship construction and in reliability of operation, a lead no other great naval power can follow with security. The great demand for petroleum and its products, however, has resulted in practically doubling the price of fuel oil in the last two years, and everything seems to indicate a further increase rather than a decrease in price. The large cost of fuel bills has thus become one of much concern to the department and to the country.

It is advisable from every point of view that the navy should become producer and refiner of oil for its own use. By the time the Panama Canal is opened and the fleet begins frequenting the Pacific, the navy should be producing its own oil from the navy petroleum reserves in the Elk Hills and Buena Vista fields of California, and its refinery should be in operation. Prompt steps should also be taken to lease oil lands in the Mid-continent fields and to erect a refinery for the supply of oil-burning vessels on the Atlantic coast. This proposed step is no new departure, for the navy now builds some of its own ships, maintains large industrial navy yards, a gun and a clothing factory—all of which are indispensable to the supply of superior articles for the navy and for the control of prices from commercial concerns furnishing similar articles.

A well-digested plan for the establishment of oil-fuel tanks at various ports and strategical points has been adopted, and the tanks will be erected well ahead of the time their usefulness may be expected to begin.

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## NEW ZEALAND OIL DEVELOPMENTS.

CABLES from New Plymouth announce a strike of oil at the Blenheim well of the Taranaki Oil Lands Acquisition and Development Company, Ltd. The well cannot be described as a gusher, but, all the same, the result must be highly satisfactory to all concerned.

The new well was down 1,000 ft. before the rotary of the Taranaki (N.Z.) Oil Wells, Ltd., was started, and the latest cables state that the rotary is now within 50 ft. of the depth at which the new well has struck oil.

The drilling work at all new wells near the refinery has been most satisfactory, but the rotary holds the record for quick drilling and it is expected that in a few days this well will reach the same oil level as the Blenheim.

No. 5 well of the Taranaki (N Z.) Oil Wells, Ltd., is giving a good regular production.

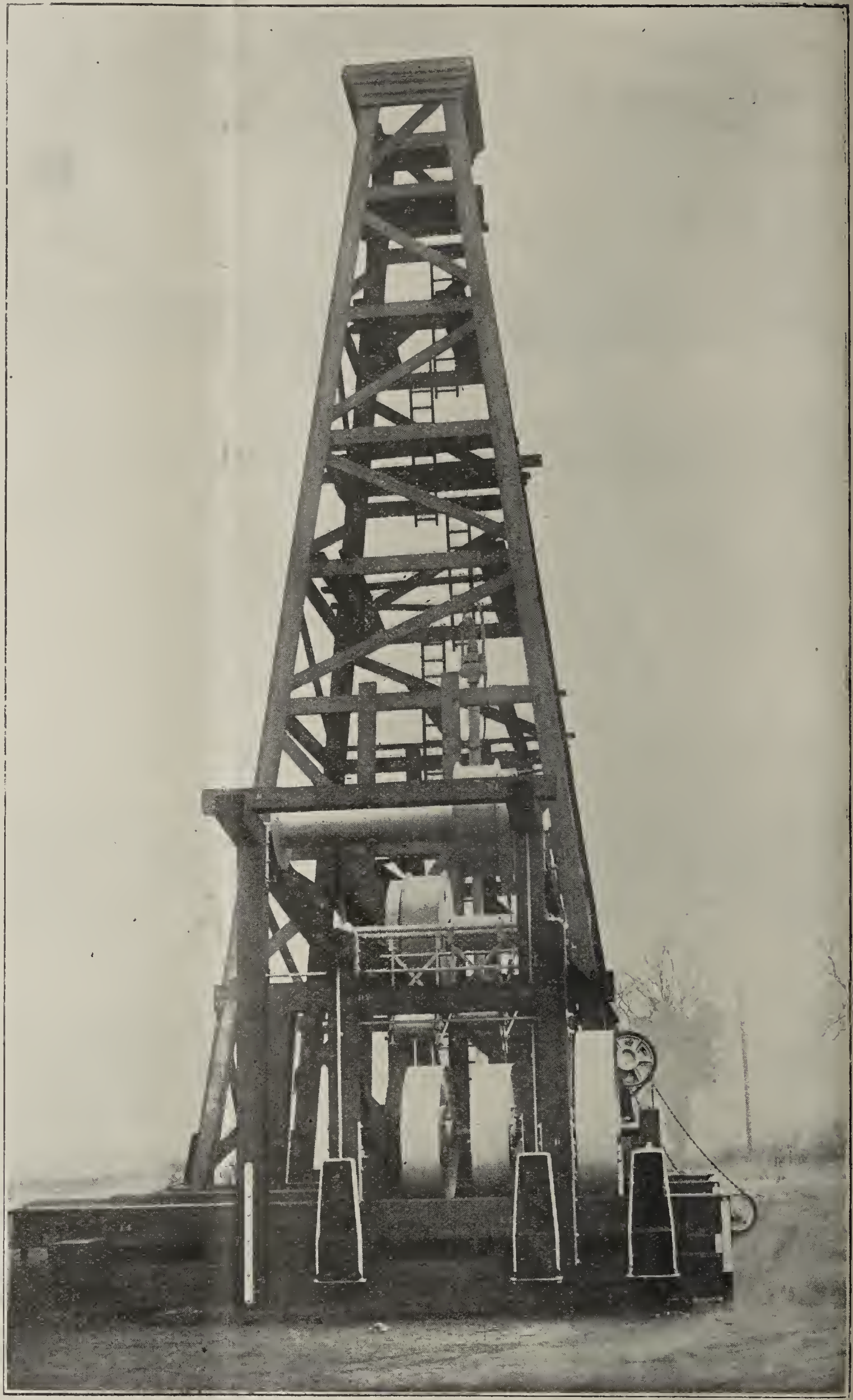
It has been the policy of the Taranaki (N.Z.) Oil Wells, Ltd., to encourage local companies to produce oil for the new refinery, the products of which are now being sold in the Dominion.

# The Perkins Macintosh Petroleum Tool and Boring Co., Ltd.

### A 6,000-ft. Heavy Percussion Rig with Rotary Attachment.

AMONG the several derricks which are now standing in the erecting yards of the Perkins Macintosh Petroleum Tool and Boring Company, Ltd., at St. Albans, the one here illustrated is of more than ordinary interest. It is one of the firm's heavy percussion rigs and derricks with a rotary attachment, and is similar to the one which, without rotary attachment, has the credit of having drilled a producing well in Galicia to the depth of nearly a mile and a quarter. It is known as the company's 6,000-ft. speciality, for which to-day several important inquiries are being made by various operating companies whose operations are mostly in deep producing territory.

The illustration here given, and which has been taken to show the percussion draw works, conveys an excellent idea of the general solidity, and speaks volumes for the excellence of the engineering jobs turned out of the St. Albans works.



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## EXPORTS OF PETROLEUM PRODUCTS FROM AUSTRIA.

### Statistics for the First Nine Months of 1913.

THE exports of products from Austria during the first nine months of the year totalled 388,341 tons, as against 473,684 tons exported during the corresponding period of 1912. The above quantity includes the following products :—

| | Tons. |
|---|---|
| Crude oil ... ... ... ... | 954 |
| Kerosene ... ... ... ... | 180,787 |
| Benzine, crude ... ... ... | 29,770 |
| „ refined ... ... ... | 38,138 |
| Lubricating oils ... ... ... | 107,573 |
| Paraffin wax and ceresine .. ... | 30,482 |
| Other products ... ... ... | 4,547 |

The exports of various products to the countries were as under :—

| To | Kerosene. Tons. | Benzine. Tons. | Lubricating Oil. Tons. | Paraffin Wax and Ceresine. Tons. |
|---|---|---|---|---|
| England ... | — | — | 66 | 910 |
| Belgium ... | 308 | 2,679 | 7,751 | 162 |
| Germany ... | 144,235 | 46,571 | 68,538 | 15,815 |
| Italy ... ... | 3,739 | 919 | 4,739 | 7,443 |
| France ... ... | 14,287 | 8,057 | 1,695 | 919 |
| Switzerland ... | 14,383 | 5,516 | 5,741 | 276 |
| Other countries. | 3,835 | 4,166 | 19,043 | 4,957 |

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|---|---|---|---|---|---|
| S.S. Pinna... ... | 8,200 | S.S. Caucasian ... | 6,600 | S.S. Balakani ... | 5,200 |
| ,, Danubian... | 6,900 | ,, Lutetian ... | 6,300 | ,, Oriflamme... | 5,200 |
| ,, Servian ... | 6,700 | ,, Saxonian ... | 6,200 | ,, Luciline ... | 5,200 |
| ,, Carpathian | 6,700 | ,, Teutonian ... | 6,200 | ,, Le Coq ... | 4,700 |
| ,, Roumanian | 6,700 | ,, Terek ... | 5,200 | ,, Rock Light... | 4,100 |

S.S. Lux ... ... 2,900 Tons of Oil.

AND THE

DIESEL MOTOR BOAT, Sebastian, 4,500 Tons of Oil.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | $\frac{21}{32}-\frac{23}{32}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1-1\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 90-95 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/0-5/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/9-7/9 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 30/6-31/6 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 32/6-33/6 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{5}{8}-\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}-\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 20/0-21/0 |
| Russian Petroleum Co. ... | 999.373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 15/0-16/0 |
| ,, ,, Ord... | 690,000 | fully pd. | 14/0-15/0 |
| Shell Transport and Trading | | | |
| Co., Ltd. ... ... Ord. | 1.047.610 | £1 | $5\frac{5}{32}-5\frac{7}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{3}{8}-10\frac{5}{8}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 21/0-22/0 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Latest Quotations. Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 697 | 700 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3.185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,700 | 18,800 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 990 |
| Russian Naphtha Society ... ... | 100 | 251 | 253 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 34/9 |
| ,, 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil. Ord. ... ... ... | 1,100,000 | £1 | 81/6 |
| ,, Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| ,, 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd., | | | |
| Non. Cum. Pref. ... | $8,500,000 | $10 | 42/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 34/6 |
| ,, Pref. (£1 paid) ... | 100,000 | £1 | $21/4\frac{1}{2}$ |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/0 |
| Pumpherston Min. Oil Co., Ltd. | | | |
| Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{1}{4}$ |
| ,, 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 9/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 70/3 |
| ,, "B" Deb. ... | 160,000 | £100 | £153 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| ,, ,, ,, ,, Pref. ... | ,, | 181 |
| Royal Dutch Petroleum Co. ... ... ... | ,, | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | ,, | 234 |
| Perlak Petroleum Maatschappij ... ... | ,, | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | ,, | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | ,, | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | ,, | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | 1/3 1/9 |
| Anglo-Persian Preference (£1)... ... ... ... | $\frac{15}{16}-1\frac{1}{16}$ |
| Anglo-Terek (£1)... ... ... ... ... ... | $0-\frac{1}{8}$ |
| Baku (10/- Shares) ... ... ... ... ... | 5/0-5/6 |
| Batavia (£1) ... ... ... ... ... ... | 19/6-20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{1}{4}-\frac{3}{8}$ |
| ,, Preference (£1) ... ... ... ... | $\frac{5}{16}-\frac{7}{16}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{19}{32}-\frac{21}{32}$ |
| British Burmah Petroleum (£1) ... ... ... | 5/0-5/6 |
| British Maikop (2/-) ... ... ... ... ... | $0/10\frac{1}{2}-1/1\frac{1}{2}$ |
| California (£1) ... ... ... ... ... ... | $5\frac{3}{4}-6\frac{1}{4}$ |
| California Petroleum Preference ($100) ... ... | 67-69 |
| Cheleken (£1) ... ... ... ... ... ... | $1\frac{19}{32}-\frac{21}{32}$x |
| Chijules (£1) ... ... ... ... ... ... | $1-\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{13}{32}$ $\frac{15}{32}$ |
| Copan Oilfields ... ... ... ... ... ... | 5/0-5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... ... | 2/0-2/6 |
| Eagle Transport Preference (£5) ... ... ... | $5-5\frac{1}{8}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | $2\frac{1}{4}-2\frac{3}{4}$ |
| Emba Caspian (£1) ... ... ... ... ... | $\frac{9}{16}-\frac{11}{16}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 5/3-5/9 |
| Hungarian National (£1) ... ... ... ... | $\frac{1}{2}-\frac{3}{4}$ |
| International Russian (5/-) ... ... ... ... | 0/9-1/0 |
| Kansas-Oklahoma (£1) ... ... ... ... ... | $\frac{21}{32}-\frac{25}{32}$ |
| Kazan Oilfields (£1) ... ... ... ... ... | $1-1\frac{1}{8}$ |
| Kern River (10/-)... ... ... ... ... ... | $7/1\frac{1}{2}-7/10\frac{1}{2}$ |
| Lagunitos (£1) ... ... ... ... ... ... | 3/3-4/3 |
| London Oil Syndicate (£1) ... ... ... ... | $1-\frac{1}{4}$ |
| Maikop Premier (£1) ... ... ... ... ... | 10/3-10/9 |

| Company. | Friday's Prices. |
|---|---|
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/6-4/0 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0-2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | $2\frac{1}{32}-2\frac{3}{32}$ |
| Mexican Eagle Preferred ($10)... ... ... ... | $2\frac{1}{16}-2\frac{1}{8}$ |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 85-95 |
| New Caucasian (10/-) ... ... ... ... .. | 1/3-1/9pm |
| New Oil Properties (£1)... ... ... .. ... | $\frac{7}{8}-1$ |
| Oil Development Trust (2/-) .. ... ... ... | 1/0-1/6 |
| Oil Shale Development (5/-) ... ... ... ... | 3/9-4/0 |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{8}-\frac{1}{4}$ |
| .. ,, Preference ... ... ... ... | $\frac{1}{2}-\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... ... ... ... | $\frac{7}{8}-1$ |
| Pacific Petroleum (£1) .. .. ... ... ... | 22/0-23/0 |
| Premier Oil and Pipe Line (£1) ... ... ... | $4/7\frac{1}{2}-5/1\frac{1}{2}$ |
| Ratoczyn (£1) ... ... ... ... ... ... | $2\frac{7}{16}-\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{11}{16}-\frac{3}{4}$ |
| Russian General Oil Corporation (£1) ... ... | $1\frac{27}{32}-\frac{29}{32}$ |
| Santa Maria of California Ordinary (£1) ... ... | 17/0 18/0 |
| ,, ,, Preferred (£1) ... ... | $1\frac{1}{4}-\frac{5}{16}$x |
| South Caucasian (£1) ... .. ... ... ... | $1\frac{3}{8}-\frac{7}{8}$ |
| Suez (£1) ... ... ... ... ... .. ... | 4/0-5/0 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | $16/1\frac{1}{2}-16/4\frac{1}{2}$ |
| Tampico-Panuco (5/-) .. ... ... ... ... | 7/9-8/3 |
| Traian (Roumanian) (£1) ... ... .. ... | $\frac{7}{8}-1$ |
| Trinidad (£1) ... ... ... ... .. ... | $\frac{7}{16}-\frac{9}{16}$ |
| Ural Caspian (£1) ... ... ... ... ... | $2\frac{15}{16}-\frac{17}{16}$ |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | $1\frac{9}{16}-\frac{11}{16}$pm |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}-\frac{1}{2}$ |

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, January 24th, 1914.

## AMERICA AND ITS ILLUMINATING OIL TRADE.

At first sight it may appear strange that though the export of illuminating oil from America has for years consistently increased, following upon the worldwide demand created by that remarkable organisation, the Standard Oil Company, anything but satisfaction prevails among the independent refining interests of the States. In fact, the general uneasiness as to the future of illuminating oil stocks has reached such a pitch that a new organisation has been brought into being in order to find and to take advantage of additional openings for consumption.

The subject is of intense interest, since the foreign demand for American illuminating oils forms the most important of any of the branches of the American oil export commerce, and by reason of its immense bulk, stands out prominently as showing the great efforts which have so successfully been put forward to market the States illuminating oil throughout the world. Remarkable, however, though the progress in this direction has been in the past, the development of the American fields has been carried on in such an energetic manner that the output of refined products—and this remark must be taken to apply particularly to illuminating oils—has been increased to an even greater extent, the natural result being that to-day the independent refiners find themselves with great stocks of kerosene on hand, for which there is no available or, at least, no cultivated market.

The independent refineries of Oklahoma and Kansas have therefore decided to take the "bull by the horns" and launch out for themselves into the markets of the world. The step is, of course, one of considerable importance, and in any case will necessitate the investment of very large sums of capital. The new combination is to be known as "The Export Organisation," and the Review learns that its members will include practically every independent refiner in Kansas and Oklahoma. The officers of the association are already appointed, and include Mr. James King Duffy, of the Phœnix Refining Company of Tulsa, president; Mr. C. A. Braley, of the Chanute Refining Company, vice-president; Mr. Charles F. Martin, of the Chelsea Refining Company, secretary; and Mr. Eugene Constantin, of the Constantin Refining Company, Tulsa, treasurer.

It was stated at the inaugural meeting that all the kerosene anybody required could be bought for less than two cents a gallon at the refineries. In fact, for more than two years the refineries in Kansas and Oklahoma have found kerosene a drug on the market, or rather a drug without a market. The refiners have almost given it away in order to avoid the necessity of providing storage.

Last year, it will be remembered, the refineries sent a representative to Berlin to make arrangements for a market for the refined oil of Kansas and Oklahoma with the German Government, which at that time was seriously considering the taking-over of the refined oil business in the Empire and constituting a Government monopoly. Though the plan at that time failed, the German Government has recently renewed the effort to secure legislation constituting a Government monopoly of refined oils, and has had representatives in the American Mid-continental fields as well as in Mexico investigating conditions with a view of ascertaining the amount of supply available and the permanence of the production, together with the cost of refining and the cost of transportation.

Though the report of the officials who visited the American independent refineries has not been made public, it can be surmised that it is of a favourable character to the independents, who feel that once their new organisation is in a position to commence operations, these will be of immense benefit to them, and find a profitable outlet for their kerosene stocks which are increasing from week to week.

The new movement, however, will in all probability be of far wider importance than is suggested by the mere supplying of the German illuminating oil market: in fact, the officers of the new organisation have already made it public knowledge that they are not totally pinning their faith to the German market, but are in correspondence with other powerful interests in the oil markets of the world for the distributing of their kerosene.

Should matters mature, therefore, on the lines which have generally been laid down, it is not too much to expect an important and entirely new factor in the export of American illuminants. But the matter does not end here. We have studied the situation sufficiently well to see that, when once the new organisation seriously commences its operations, a distinctly unfavourable turn of events may set in throughout the American oil-producing regions, for the Standard will not readily allow a new competitor to attempt to cut the ground from under its feet.

The result will undoubtedly be one of those suicidal price-cutting wars which leave their train long after hostilities have been withdrawn, and bring disaster to every interest associated with the petroleum industry. We fully appreciate the position of the independent Mid-continental refiner; it is unfortunate, but whether the new move will tend to improve matters, or in the long run make them incalculably worse, we have grave doubts.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JANUARY 19th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Jan. 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. | Since Jan 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. | Since Jan. 12. | From Jan. 1. |
| Belgium .. | — | — | 15,610 | 33,710 | — | — | — | — | 8,180 | 8,180 | — | — | — | — | 23,790 | 41,89 |
| Canada .. | — | — | — | — | 2,600 | 2,600 | — | — | — | — | — | — | — | — | 2.600 | 2,60 |
| Dutch Indies | — | — | — | — | — | — | — | — | 1,385,000 | 2,814,000 | — | — | — | — | 1,385,000 | 2,814,00 |
| Germany .. | — | — | 22,050 | 58,000 | — | — | — | — | — | — | — | — | — | — | 22,050 | 58.00 |
| Holland .. | — | — | — | 2.410 | — | — | — | 55,000 | 345,000 | 809,000 | — | — | 590 | 590 | 345,590 | 867,00 |
| Mexico .. | 882,000 | 882,000 | — | — | — | — | — | — | — | — | 261,800 | 261,800 | — | — | 1,143.800 | 1,143,80 |
| Roumania .. | — | — | — | — | — | — | — | — | 120,200 | 771.340 | — | 1.207,910 | — | — | 120,200 | 1,979.25 |
| Russia . | — | — | — | 800 | — | — | — | — | — | 1,907,310 | — | — | — | — | — | 1,908,11 |
| U.S.A. .. | 3,566.580 | 6.713,450 | 408,440 | 2.126,830 | — | 5,280 | 2.118.830 | 7,419,750 | — | — | 64,430 | 64,430 | 2,610 | 32,460 | 6,160,890 | 16,692,20 |
| Other Countries | — | — | 3,190 | 5,160 | — | — | — | — | — | — | — | — | — | — | 3,190 | 5.16 |
| | 4.418,580 | 7,625.450 | 449.290 | 2,526.910 | 2,600 | 7.880 | 2,118,830 | 7,474,750 | 1,858,380 | 6,309,830 | 326.230 | 1,534,140 | 3,200 | 33,050 | 9,207,110 | 25,512,01 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Californian Producing Wells.** There are at present 5,850 oil-producing wells in the Californian fields, of which 1.200 are in the prolific Sunset-Midway fields.

**Transfer of Property.**—The holdings of the Sour Lake Petroleum Company have recently been transferred to Mr. H. M. Terry. On the property there is one flowing well which is giving 500 barrels a day.

**Oil in Grimes County.** Owing to the discovery of considerable quantities of oil in an artesian well near Bedias, Grimes county, an energetic movement has just been started to make extensive exploration of the suspected oilfield.

**A New Company.**—A new company has just been organised under the auspices of the San Angelo Chamber of Commerce for the purpose of thoroughly testing the oil possibilities of the San Angelo territory. It is stated that the new company owns options over 300,000 acres of land in Tome Green county.

**Californian Stocks.**—There are to-day over 48,000,000 barrels of crude oil in stock in the Californian fields, or approximately six months' total production. Of this quantity the Standard Oil Company has approximately 30,000,000 barrels, the Independent Agency nearly 10,000,000 barrels, and the Associated Oil Company 8,000,000 barrels. The Standard continues to build additional storage, and is buying all the oil it can secure.

**Objections to Canadian Natural Gas.**—It is reported that the natural gas from the Tilbury fields of Canada, which is being used to light the town of Brantford, is very unsatisfactory, and many complaints have been received from the citizens, who object to the sulphurous smell. The regulations of the Dominion Parliament strictly prohibit the use of gas containing sulphur, and an injunction is now being sought for to restrain the company supplying further gas for lighting needs.

**Kansas Developments.**—Wintry weather of an exceptionally severe character is being experienced in the Kansas fields, and owing to lack of water scores of wells are shut down. In Oklahoma, though there is less snow, unusual cold is being experienced, and development operations have been necessarily greatly curtailed. Oil men anticipate that 1914 will be the best year in the history of Kansas developments, and see more drilling work accomplished than has ever been known.

**More Oil-fuel Burning Steamships.**—Oil is rapidly replacing coal for steamship firing along the Pacific Coast. The Pacific Coast Steamship Company is about to place its vessel the "President" in dry dock for the purpose of transforming her into an oil-fuel burner, and during the time this boat is laid up, the steamship "Congress," which also uses oil, will take its place. After the work of transforming the "President" is completed two other vessels of the company—the "Governor" and the "Queen" will be similarly equipped for oil fuel.

## RUSSIAN.

**Third Cargo of Mexican Oil for the Russian Railways.**—On December 12th the tanker "St. Edward" arrived at Batoum with a cargo of 6.225 tons of Mexican oil for the Transcaucasian Railways.

**Exploitation of Petroleum Gas.**—On December 23rd a new law was promulgated allowing lessees of State petroliferous plots to exploit the gas from their wells on other plots situated outside the areas leased by them.

**Liquid Fuel Siezd.**—The Ministry of Trade and Industry is convocating a siezd of delegates of various departments and fuel producers in order to discuss the present situation as regards mineral fuel, and to elaborate measures for improving such.

**State Petroleum Revenues.**—The budget for 1914 estimates the revenues from the exploitation of State petroliferous areas at 17.500,000 roubles, being 7,100,000 roubles more than the revenues for the last year. Besides the above sum, the per pood tax will bring in another 2.330,159 roubles, and the percentage tax another 13,945,165 roubles.

**Boring on the New Grosny Area.**—The production on the new area during November amounted to 25,315 poods. There were altogether in exploitation 21 wells of a minimum depth of 1.834 ft. on 14 plots, including 10 plots on Belik's property, 3 on Tcheremoeff's, and 1 on Kurumoff's. Boring during the month amounted to 2,975 ft.

**Regulation for the Import of Fuel from Abroad Free of Duty.**—The Administration of the Customs declares that petroleum and residuals which are allowed into Russia free of duty must submit to the following tests: Specific gravity (Engler's test), below 6; percentage of tarry matter not less than 8 per cent., and a flash point below 120 (Marten-Penski).

**Petroleum in Turkestan.**—Explorations for petroleum in Turkestan in the Sel-Rokho and Tash-Ravat localities are now being made by a representative of an English group, whose investigations have already given brilliant results, and several spouting wells are already completed. The wells are at present corked, as there is no accommodation for storing the spouted oil.

**International Exhibition at Moscow.**—The Ministry of Trade and Industry has addressed all the Russian Trade Exchanges with a circular referring to the organisation of the International Industrial Exhibition at Moscow in 1917. Practically all the Exchanges have given their consent to participate in this Exhibition. The petroleum industry will form an important branch of the Exhibition.

## ROUMANIAN.

**Production during 1913.**—The total production of petroleum during the last year amounted to about 1,900,000 tons against 1,800.000 tons in 1912, thus showing an increase of 100,000 tons, or about five per cent.

**Exportation.**—Exportation is suffering enormously owing to difficulties of transport to Constanza. Several tank steamers are expected to arrive at Constanza shortly, but there is hardly any possibility of having sufficient quantities in time to load the former.

**Astra-Romana.**—The production of this company during November averaged 1,021 tons a day, of which 787 tons are obtained at Stavropolcos, 132 tons at Bana, 40 tons at Campina, 59 tons at Filipeshti, and the remainder at Baicoi and Glodeni.

**Production.**—The general production has been slightly weaker during the last week. The Colombia well No. 1 produces about 70 tons a day. Energetic work is being proceeded with on the fields in order to increase the production and a great development is shortly expected.

**Steaua-Romana.**—The production of this company during the past week averaged 1,089 tons a day, of which 461 tons were obtained at Campina and 337 tons at Policiori. Regular eruptionr are registered in the wells No. 1 Moreni-Tzuicani with 16 tons per day, well No. 232 Runcu with 4 tons per day, and well No. 4 Filipeshti with 1 ton per day.

**Orion.**—The production of this company on its various fields during December was as follows:—Tzintea, 5,382 tons; Gropi, 1,913 tons; Bordeni, 12 tons; Arbanash, 40 tons; Bana, 760 tons; and Runcu, 323 tons; making a total of 8,430 tons. Well No. 201, at Arbanash, has now reached the second stratum of oil and yields 8 tons a day.

**Prices.**—The prices of crude oil are maintained at the same level. There is very little oil disposable on the market, while the demands of the refiners are considerable. Bustenari oil sells at 8.10 frs. to 8.15 frs. per 100 kilos. Prices of products on the interior market have not changed, with the exception of lubricating oils, the price of which has gone up by 4 to 8 frs.

**The Refinery Predinger.**—As we have already announced, this refinery was bought some time ago by Mr. L. Lepretre at a price of 600,000 francs. The latter has now registered his company, the capital of which has been fixed at 1,600,000 francs. The refinery has a working capacity of about 22,000 tons a year, and a contingent of about 1,000 tons.

**December Production.**—The production of petroleum during December of the firms registering on the new style was as follows:—Astra-Romana, 37,765 tons; Romana-Americana, 35,305 tons; Orion, 8,430 tons; International, 4,467 tons; Roumanian Consolidated Oilfields, 4,126 tons; Nafta, 2,917 tons; Trajan Roumanian Oil Company, 1,535 tons; Anglo-Roumanian Petroleum Company, 1,244 tons; and Aquila Franco-Romana, 1,612 tons.

# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Tulsa Oil Company, Ltd.** — Week's production, 1,623 barrels (224 tons).

**Traian Roumanian Oil Company, Ltd.**—Production week ended January 17th, 335 tons.

**Roumanian Consolidated Oilfields, Ltd.**—Production week ended January 17th, 1,161 tons.

**Maikop Premier.**—Telegram : "New well No. 5, installing baling drum. New well No. 6, 191 ft. ; increase, 56 ft."

**Anglo-Egyptian Oilfields, Ltd.**—Production from Gemsah, well No. 14 (week ended January 18th), 536 tons : last week, 581 tons.

**Kansas-Oklahoma Oil and Refinery Company, Ltd.**—Run of oil through pipeline to refinery, 14 days ended January 15th, 22,500 barrels.

**Maikop Midland Oilfields, Ltd.**—One well cleaning and repairing pump four days. Well No. 6, depth 1,200 ft. Well No. 7, depth 952 ft.

**British Colonial Petroleum.**—Manager reports well had reached 303 metres on January 14th. Eruption oil strata expected to be reached at between 310 and 315 metres.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production week ended January 17th, 144 tons. Production lower owing to temporary suspension electric power and holidays.

**Balkan Petroleum Syndicate, Ltd.**—Position of well No. 1 at January 19th : drilled 532 metres, cased 530 metres ; gas and oil traces continue. Note—Gas and oil traces have now continued for a depth of 28 metres.

**International Russian Oilfields, Ltd.** — Drilling operations, four weeks ended January 17th : Plot No. 77 : depth reached, 2,241 ft. : increase, 159 ft. : formation, sand and shale. Plot No. 107 : depth reached, 617 ft. ; increase, 268 ft. ; formation, clay.

**Tampico Oil Company, Ltd.** — Progress report. The manager reports by cable as follows : Borehole No. 2 North : depth, 1,890 ft. ; increase since January 6th, 77 ft. Formation, soft mixed shale. Big oil show. Drilling has stopped on account of gas, deepening later.

**Venezuelan Oil Concessions, Ltd.** — Cable dated Maracaibo, January 19th : "Eight new shows of oil reported to the east, north, and south. Quite unable at present to inspect and report on, owing to my absence from borings now in progress very undesirable at present stage. Prospects are very favourable."

**Cheleken Oilfields, Ltd.** — The company's consulting engineer has arrived at Baku and is conferring with the local management as to the steps which should be taken to develop and bring into production at the earliest possible moment some of the properties which the company has lately acquired. It is proposed to bore on two plots, which were secured last year, adjacent to the "Aletepe," and to equip the Kerghez property near Baku. Great expectations are held as to this district, where an overflowing well has lately been struck at about 1,100 ft. in depth, on land close to our plots on the same anticline, which passes through the company's property.

**Kern River Oilfields of California, Ltd.**—The management committee of the St. Helen's Petroleum Company, Ltd., report by cable as follows : Fullerton : well No. 2, depth reached 2,800 ft., being an increase of 125 ft. Fullerton : well No. 3, depth reached 3,055 ft., being an increase of 87 ft. ; struck second oil sand at 3,050 ft. ; very hard. Midway-King lease : well No. 1B, depth reached 2,300 ft., increase 390 ft. Midway-King lease : well No. 3, flowing 650 barrels per day ; gravity 29 Beaumé. Midway McLeod lease : well No. 1, depth reached 3,610 ft., increase 50 ft. ; progressing slowly. Santa Maria : well No. 1, depth reached 3,740 ft., inserting 6¼-in. casing. Office note : It will be remembered that well No. 3 on the King lease struck oil on January 7th with an initial production of 1,500 barrels per day, and that the committee reported that in their opinion it will make a 500-barrel well.

GALICIAN OIL WELLS

FOR DISPOSAL - - -

Several Petroleum-producing Wells in the Galician (Austrian) Fields are for Sale. Enquiries to be addressed to—

Kazimir v. Zbyzewski, Wahringergurtel 152, Vienna ix/4.

# The Oil and Gas Prospects of the North-West Provinces of Canada.

By Mr. WYATT MALCOLM.

(*Continued from page 52.*)

A MUCH greater volume of sediments is exposed in the west than in Manitoba or Northern Alberta. In the west also the geological column is nearly complete, while in the east and north unconformities exist representing great intervals of time. In the Rocky mountains great bodies of argillites followed above by limestones were deposited during Cambrian times to a thickness of many thousand feet, but in Manitoba no rocks of this age are to be found. Ordovician limestones and shales, while of great thickness in the mountains, are only about 500 ft. thick in Manitoba. The Silurian dolomites and quartzites of the Rockies are 1,300 ft. thick, while Silurian limestones of Manitoba are only 200 ft., and the Devonian dolomites of the Rockies are 1,500 ft., while those of Manitoba are only 500 ft. In the Rocky mountains and foot-hills there is a thickness of more than 7,000 ft. of Carboniferous shales, limestones, and quartzites, of more than 1,200 ft. of Permo-Triassic shales, of 1,600 feet of Jurassic shales, and of 375 ft. of Kootanie shales and sandstones; while in Manitoba and Saskatchewan no traces of these are seen, and strata of the Dakota group of the Cretaceous system rest directly upon Devonian limestones. Rocks of the Dakota, Colorado, and Montana groups of the Cretaceous system are widely distributed, and sections of these are seen on Athabaska and Peace rivers, in Manitoba and in the foot-hills, while exposures of the upper beds are seen in a great many places over the great plain. These do not vary so much in aggregate thickness, but, like the other systems, the Cretaceous is also thicker towards the west. The Laramie is represented by a great thickness of sandstones and shales lying in the broad Alberta trough and by a much diminished thickness in the scattered elevations of Southern Saskatchewan. Some of these elevations are capped by coarse deposits of Tertiary age, and overlying the whole plain is a mantle of glacial drift and lacustrine deposits.

Owing to the impossibility of correlating many of the formations found in one part of the district with those of the same system in another part, no single table of formations can be given. Nearly all of the great geological systems are represented, and, along with the descriptions of these, will be given partial tables of the formations found in different localities. Under the heading "Economic Geology" will also be given various sections, which it is hoped will be of use to those engaged in boring operations.

While some sediments of Palæozoic age underlie the whole of the area under consideration, outcropping along its eastern and western edges and extending north-west into the basin of the Mackenzie river and south a great distance into the United States, the different Palæozoic systems have by no means equal distribution. The Cambrian rocks attain a great thickness in the Rocky mountains, where they are brought to the surface by folding and extensive faulting. They have a great extent north and south, and outcrops, more or less elongated in the direction of the mountain ranges, extend from the 49th parallel north-westward into the north-eastern part of British Columbia. They are also found in the Mackenzie mountains, the continuation of the Rocky Mountain system into that portion of country lying immediately east of the Yukon territory. The east and west extension of the Cambrian system, however, is not so great, and nowhere in Manitoba or Saskatchewan have outcrops of this system been found, nor in Alberta beyond the Rocky Mountain system. It probably undergoes a rapid thinning from the Rocky mountains eastward, for in the northern part of the Black hills of South Dakota it has a thickness of only a little over 300ft. and thins down gradually to the south-east. As exposed in the Black hills it is known as the Deadwood formation, and is equivalent to the middle Cambrian of the Rocky mountains. It consists of conglomerate, quartzite, ferruginous sandstone and many alternations of green shale, limestone breccias, and fucoidal limestone flags, while at the top are found Scolithus sandstone or quartzite and thick green shales.

Regarding the rocks of Cambrian age lying in the Rocky mountains between latitudes 49° and 50° 30′, Dawson says: "Of the rocks referred to throughout this report as Cambrian no complete general section can be offered. So far as this district is concerned, they form the basal formation, and it will probably be necessary to seek their actually lowest beds in the Purcell or Selkirk ranges, in which it is probable that they occur in conjunction with still older crystalline rocks. The component beds of the great Cambrian series are, in the main, quartzites and quartzitic shales, passing into argillites, and occasionally including limestone or more or less calcareous or dolomitic material and conglomerates. Sheets of contemporaneous trap also occur, probably at several horizons. The colours of these beds are extremely varied, and though, as a rule, considerably indurated, they seldom show traces of metamorphism resulting in the production of crystalline minerals.

"The most instructive section obtained of a portion of the Cambrian formation is that found near Waterton lake, and in the eastern part of the South Kootanie pass. This embraces a thickness of about 3,000 ft. . . . . .

"Between the eastern summit of the South Kootanie pass and the Flathead river, the minimum estimated thickness of the outcropping Cambrian beds is 11,000 ft., but the section includes neither the summit nor the base of the series. Other sections show a probable thickness of over 5,000 ft. for a part of the series, but none were found in which its whole volume could be ascertained."

Some difference of opinion is held regarding the age of the series. While R. A. Daly agrees with Dawson in placing these sediments in the Cambrian system, C. D. Walcott, of the Smithsonian Institution, believes them to be pre-Cambrian.

The Cambrian exposed in the Rocky mountains along the main line of the Canadian Pacific Railway is represented by two series, the Bow River group and the lower part of the Castle Mountain group. Walcott gives a detailed classification of these, and regards as pre-Cambrian the shales of the Bow River group on which he finds the conglomerates resting uncomfortably.

According to McConnell, "the Bow River group forms the basal member of the section in this part of the mountains, and, as developed along the line of railway, consists mainly of a great series of dark-coloured argillites, associated with some sandstones, quartzites and conglomerates. The base is not seen, but the part exposed has an estimated thickness of 10,000 ft.

"The argillites are usually dark-greyish in colour, but become greenish and purplish in places, are very impure, and frequently grade into flaggy sandstones, which are often slightly calcareous. The small quantity of lime present is due, doubtless, in most cases to a decomposition of the feldspathic constituents of the rock. They are hardened and occasionally cleaved, and scales of mica are often developed along divisional planes, but on the whole show comparatively little alteration for beds of this age."

The conglomerates characterise more especially the top of the series, and occur in thick beds alternating with quartzites and shales. They are hard and unyielding, carry pebbles of milky or semi-transparent quartz and fresh-looking, whitish feldspar. The matrix contains an abundance of pale mica.

The quartzites are found chiefly in the upper part of the series. They are largely developed in the watershed range between Eldon and Laggan.

"The Bow River series occupies the wide longitudinal valley east of the watershed range, and is met with all along the line of railway between Silver City and Stephen . . . . It is possible that some of the schistose rocks of the Ottertail and Beaverfoot valleys, which have been referred to the Castle Mountain group, may belong to this series."

In the Yellowhead pass the Bow River series consists of about equal thicknesses of black argillite and pinkish and greenish quartz-conglomerate. The latter is usually squeezed into a schistose-conglomerate with more or less development of sericite, and in some places the alteration is so complete as to produce a mica-schist.

Farther north, on the Omineca and Finlay rivers, the Shuswap series is overlain by a band of slates, quartzites, and conglomerates similar in lithological character and in geological position to the Bow River series farther south, and like it probably referable to the lower and middle Cambrian. The conglomerates consist principally of small rounded quartz and feldspar pebbles embedded in a hard siliceous matrix. A characteristic of the conglomerates of the Bow River series is the purplish colour of many of the quartz grains. In places they are greatly crushed and become quite schistose. On the Omineca the series attains a thickness of about 4,000 ft.

The Castle Mountain group has been described by McConnell as occurring along the main line of the Canadian Pacific railway and on the Omineca river, and has been recognised by McEvoy in the Yellowhead pass. It ranges in age from the middle Cambrian up into the Ordovician.

Along the Canadian Pacific railway this group has a minimum thickness of 7,700 feet, but as the whole series was never seen in one section, it is highly probable that the total volume approaches 10,000 ft. It overlies the Bow River series, and in the eastern ranges it is overlain by the intermediate limestone of Devonian age, and in the west, along the Columbia river, by graptolitic shales of Ordovician age.

"The Castle Mountain group is essentially a limestone formation, and consists of ordinary and magnesian limestones, together with every gradation between them and calcareous shales and schists. Its mode of stratification, like its composition, and dependent upon it, is very variable, and massive beds of hard limestone are often replaced in the course of a few miles, by cleavable calc-schists and soft shales. The beds are more persistent along the strike than in a transverse direction, and the harder bands project as longitudinal ridges, often of great length, separated by valleys, which mark the position of the softer varieties." As a rule the strata are more dolomitic and more heavily bedded near the base of the column, and become more shaly and calcareous above, although the sequence and relative importance of the various members of the group differ widely in different sections. The dolomites of the Castle Mountain range occur in heavy beds, often several feet thick, and on fresh fracture have a greyish or banded appearance. A large portion of the rocks of this group consists of mixtures of dolomites and limestones in various proportions, while a great series of greenish calc-schists, and greenish and reddish shales and slates associated with the limestones and dolomite, is found in the Wapta valley.

In the Yellowhead pass the rocks of this group consist of grey "quartzites with slaty layers between the beds, some black slates, banded grey and yellowish sericite schist holding crystals of iron-pyrites, lead-grey wrinkled sericite-schist, dark-blue limestone and cream-coloured crystalline limestone."

A grey limestone formation passing in places into a calc-schist is found in the Peace River pass and on the Omineca and Finlay rivers. It overlies the Bow River conglomerates, although in many places the latter are absent, either from non-deposition or in consequence of faulting, and the limestone comes in direct contact with the Shuswap series. No fossils were found in the limestones, but they probably range from the middle Cambrian to the Ordovician.

The Athabaska sandstone, which is probably of Cambrian or pre-Cambrian age, lies to the south and east of Lake Athabaska. It is coarsely granular in texture, passing in places into a conglomerate, and is white to dull red in colour. A vertical section of 400 ft. was obtained near the east end of Lake Athabaska.

(*To be continued.*)

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# Remarks on the Origin of Petroleum.

By Mr. E. H. PASCOE, M.A.

*An interesting chapter from the Government Bulletin "The Oilfields of Burma."*

(*Continued from page 82.*)

In one district of New Brunswick some sixty-five to seventy borings were made in the oil-shale series, and although nothing of commercial importance was met with, free oil and gas were found occurring in sandstones. At Baltimore wells were bored in the same series ("Albert Shale Series") and in three of the logs given by Mr. Ells we find the items "Shale – holds oil and will burn," "Banded shale—small quantity of oil," "Oily shale but not a true oil shale," and mention of oil in sandstone. Borings in the same rocks were also made at the Albert Mines and at Elgin. Natural oil springs are found in the oil-shale country of these parts, but no deep-lying oil horizon has so far been encountered, although a depth of 3,000 ft. has been reached in one bore. Whatever the true nature of Kerogen may be, therefore, it not only produces petroleum on distillation, but is closely associated with free petroleum, and, in fact, may be but another link connecting the latter with the torbanite "minerals" and coal. Two characteristic accompaniments to petroleum, brine and flakes of gypsum, were found in Scotland; the latter mineral occurs also in the New Brunswick area.

With regard to the conditions of formation of oil shales the opinion of some is that they were deposited as a fine mud in swampy marshes or lagoons together with much vegetable and perhaps much animal matter. Professor Mrazec considers they owe their existence to the saprepelic deposits of shallow lakes, salt or otherwise. As the oil shales in the Scotch calciferous sandstone series are associated with estuarine limestones, such lakes or lagoons were probably only temporarily closed. An experiment of Mr. Steuart's is interesting in showing that the presence of ammonia in the oil shale is not necessarily of animal origin. A mixture of Fuller's earth and spores of lycopodiaceous plants washed in benzine to remove a free natural oil, after being distilled and retorted, yielded crude oil and ammonia in quantities agreeing very closely with those from the distillation of torbanite and some of the shales. To quote once more from this interesting paper, Mr. Steuart observes that "as peat gives paraffin products on distillation very like those of shale (oil shale), it is probable that shale contains ordinary vegetable or organic matter that has undergone decay to substances of a humic acid nature, which have been rendered insoluble and preserved by chemical combination, with the metallic oxides of the clay or water, the alumina, lime, etc." However this may be with the formation of Kerogen, or the torbanite compounds, in the case of free oil, the initial preservation of organic matter from ordinary decomposition may be attributable to the saltness of the water, and to the exclusion of oxygen, brought about by the covering up of the organic matter by sediment.

The association of coal or lignite with ordinary free petroleum is widespread and scarcely requires recapitulation. The following references to India and Burma and a few other places will illustrate this connection in Asia. To commence with Burma, we find tertiary coal, chiefly in the form of lignite, occurring in Theobald's Nummulitics and in the Pegu, both petroliferous series, and also in the younger Irrawadi sandstone. Very little is known of the nummulitic series beyond Theobald's description. Dr. Romanis mentions the existence of coal south-west of Myanaung (Henzada district), two or three miles from the reported petroleum spring, and also in two other neighbouring spots. Mr. M. Steuart examined these and found altogether five outcrops in nummulitic strata along or close to the Negrais boundary in the Henzada district, that near Kywezin reaching a total thickness of about 10 ft. Coal was worked for a short time in the small inlier of nummulitics to the south of Thayetmyo, but no oil occurs here. Oil is found in nummulitics at Taungbogyi in the Prome district, and in part of the Minbu district. There is no doubt that numbers of small oil and coal occurrences will be found in these rocks when the Yoma foothills have been properly surveyed. On the Arakan side we find coal at Tsitama in the south of Ramri Island, and at Pallang Roa, in the south of Cheduba. Whether these rocks are nummulitic or not, oil is found over the greater part of the two islands in horizons which must be very close to those of the coal.

No considerable deposits of coal have been found in the "Minbu facies" of the Pegu beds, and probably never will, since coal is not usually accompanied by beds of marine fossils. Possibly some of the coalfields of the Shan States may belong to this period, since the beds along the margin of the gulf in which the Pegu strata were laid down would be of a fresh-water type, containing no marine fossils and simulating the Irrawadi sandstone, of which they may be regarded as the precursors. Between thirty and fifty miles east of the general western shore line of this gulf the large oilfields occur, carbonaceous matter being mostly restricted to leaf markings and carbonised wood. As the shore is approached there is a general tendency for the proportion of oil to carbonaceous material to decrease. For instance, in the Yenangyaung, Singu, Yenangyat, Minbu, and other more central oil areas carbonised wood is not uncommon, and occasional traces of lignite are found. Dr. Noetling mentions a "fossiliferous conglomerate with fossil wood frequently changed into coal" from well No. 17, B.O.C. in the Yenangyaung field and the "frequent occurrence of lumps of coal in the oil-bearing sandstone." He also states that "occasional small fragments and even small seams of coal" are met with in the Yenangyaung wells. All the carbonaceous matter which has been brought to my notice here, however, has been carbonised wood, lignite, or an intermediate product. A little lignite occurs in the Pagan Hills and a small seam has been noticed near Sagyin, at the eastern foot of Mount Popa. Further west and north-west, however, where oil is less plentiful, lignite is more common, and near Myaing, Shinmadaung, Kyaukkwet, and other localities, small seams of coal exist. Further north, in the Lower Chindwin district, we have already seen that lignite occurs in the Pegu rocks which are here unfossiliferous and conglomeratic, but more plentifully in the overlying Irrawadian: seepages are numerous, but no considerable quantities of oil are likely to be found here. It is, however, still further north, near the upper end of the gulf, where the most important coal deposits naturally occur. Jones, speaking of the Kaleywa area, Upper Chindwin district, states that coal is "found in almost, if not quite, all the streams flowing in on the right bank of the Chindwin below the Kale Creek, and to the north of this point as far as Tamu," and also in the Kubo Valley. Further up still the more considerable coal deposits of Lashio are assigned by Messrs. La Touche and Simpson to the "lower portion of the tertiaries," while Dr. Noetling places them with those of Namma and of other coalfields of the Shan States in the upper tertiary. There is no oil at all here. Mr. Simpson gives the age of the Namma, Mansang, and Man-se-le coalfields of the Northern Shan States as "tertiary, possibly pliocene." On the east of our gulf Jones records coal in several places in the Panlaung Range, sixteen to twenty miles E.N.E. of Yamethin, in disturbed and contorted strata apparently of tertiary age, and similar coal close by in the Shan Hills at Legaung, Ngu, and another spot, no oil has been reported.

There is some difficulty in deciding the exact age of some of the coal, but the facts may be summarised in the statements that we have a large elongate central area of tertiary rocks dotted over with natural oil and gas occurrences, and containing a line some fifty miles or less from its western shore, along which lie the large oilfields, and that coal or lignite, although found in the oil tracts, occurs in a somewhat greater proportion around the margin of this area, especially in the upper or northern part, where it is found in workable seams, and where there is no oil. The kind of relation between oil and coal occurrences is illustrated on a small scale in the two neighbouring anticlines of Pagan and Gwegyo, the former lying north of the latter. In the Pagan rocks sandstones predominate and lignite seams occur, but no oil. In the more southern anticline, on the other hand, a deeper water phase is represented, in which clays predominate, and in the extreme south almost exclude coarser sediments; lignite has not been reported, but a very little oil has been met with in the north and more in the south. There is a distinct gradation from lignite to oil-bearing beds corresponding to one from shallower to deeper water conditions. The oil and coal of the Arakan and Chittagong coasts, and perhaps the rolled coal in the Nicobar rocks, belong possibly to another gulf.

The most interesting association of oil and coal, however, occurs in Assam. In the absence of fossils it is difficult to assign a precise age to the tertiaries here, but they resemble in some respects those of Burma, the oil occurring in what Mallet has termed the "coal measures," which are succeeded by the fossil-wood-bearing Tipam sandstone. The description of the oil occurrences in Assam must be reserved for a future publication, but a few references are too appropriate to the present subject to be omitted. In the extreme N.E. portion of this province, the structure appears to consist of an alternating series of domes or short anticlines and basins or short synclines. In the vicinity of part of the Namdang River occurs one of these domes, somewhat deeply denuded and exhibiting numerous oil seepages at various horizons down its flanks. Two borings were put down by the Assam Oil Company near the crest and a small quantity of oil obtained from one. Several thin seams and partings of coal occur in this dome, especially in the higher horizons, between those of the outcropping oilsands. This dome is followed eastwards by an elongated basin in which no oil indications are to be seen, but which contains the large and most important coal seams of Tirap, Tikak, Ledo, and Namdang; one of these is some 96 ft. thick. In the Namchik area, some twenty miles further E.N.E., there is a precisely similar relation, gas, oil, and coal occurring in the same anticline, the two former exuding from what is probably the crest, and the latter cropping out to the extent of at least 60 ft. in higher horizons. These are excellent instances of the tendency of oil-bearing strata to pass up into coal-bearing. In several other localities oil has been found exuding immediately below coal outcrops, and near Jaipur it was observed by Captain Hannay and Mr. R. R. Simpson issuing from some of the coal outcrops themselves. References to these are given in the note, but the conclusions of two workers in Assam, Messrs. Mallet and Maclaren, are worth quoting. Mallet says: "The intimate connection of the Assam petroleum with the coal measures is too obvious to escape attention. Altogether, the oil is known to rise in considerably more than a dozen localities, every one of which is either on, or close to, the outcrop of the coal-bearing group. With the exception of the Jangi, petroleum has been found in every coalfield from the Namrup to the Disai, and there is no recorded instance that I am aware of, of its occurrence elsewhere in Upper Assam. In the majority of cases the springs are near the outcrop of one or more seams of coal, and in one instance I have seen the oil oozing out of the coal itself. This, however, may have been accidental, the coal being merely the last rock through which the oil passed on its way to the surface. . . ." Maclaren says: "Not the least interesting feature of these coal measures is the almost invariable association with them of petroleum oil springs, an association so marked as to force the conclusion of a genetic connection between the oil and the coal."

In the Punjab there is the same association of the two minerals; in the Salt Range they occur with salt, gypsum, and sulphate of soda.

(*To be concluded.*)

◆

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# THE DECLINE OF OIL-PRODUCING WELLS.

## POSSIBLE CAUSES AND SUGGESTED REMEDIES.

By Mr. L. G. HUNTLEY.

(*Concluded from page 84.*)

"*Where there is encroaching water.*—If there is encroaching water wells must stop a little short of the water; hence the shot should not extend to the bottom.

"The methods of cleaning in general use may be enumerated as follows:—

"1. Removal of accumulated sand by tools and sand pump.

"2. Hot-billet treatment. I am not familiar with the results of this method, which is probably most useful where the oil carries a high percentage of paraffin.

"3. Gasoline treatment. I believe this method preferable to the hot-billet treatment, and very useful where the refinery owns the well and can thus recover the gasoline.

"4. Freshening the hole with a small torpedo. This expedient is not necessary when the sand runs in freely. It is probably most useful where some kinds of water are associated with the oil or the oil is asphaltic."

In regard to freshening the hole with small shots, so-called "squibbing," it may be said that the effect is probably to furnish the heat necessary to redissolve the accumulated waxy paraffins that clog the hole and to cause their expulsion by fresh oil. Even though it be conceded that close argillaceous and calcitic sandstone saturated with petroleum require shattering, the conclusion does not follow that all sandstones should be treated with large quantities of high explosives, as shooting often produces a heating rather than a shattering effect. In a hole full of water the liquid takes up the shock of the shot and prevents shattering, yet the shooting results in increased production by causing a fluxing of the waxy sediments.

In other wells "pay" streaks are unknown, but shooting in later years may start them flowing.

The present paper is intended merely as a brief preliminary outline of certain aspects of the technology of the oil industry that will be taken up more in detail in later papers. The spacing of wells, the construction and management of wells, the encroachment of water, the conversion of gas, the cleaning and pumping of wells, are all subjects demanding the closest attention and the most detailed study at this time, for the reason that the life of the industry depends on the lessening of waste and proper exploitation of our petroleum resources.

Exact information regarding the yield of wells is meagre and unclassified, so that the preparation of a report on the technology of this important branch involves not so much compilation of published data, but rather, to a large extent, the recording of results of extended inquiries in the field. The persons consulted frequently have no conception of the relation of the information they give to the problems under consideration. On the other hand, many producers and operators are improving their methods as a result of experience, realising that the problems in the new fields or new pools cannot be handled by rule-of-thumb methods. Such methods, although excellent for the conditions under which they originated, cannot always be applied to conditions in new fields and to drilling and operating under unforeseen difficulties.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

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January 22nd, 1914.

There are no changes in the price of Refined Petroleum which remain as follows:—Roumanian, 8d.; Russian, 8½d.; Galician, 8d.; American, 8½d.; American Water White, 9½d.

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The American Turpentine market is still fairly firm. Prices being slightly higher than reported last week, for spot it is quoted 32s. 9d.; February, 32s. 10½d.; February/April, 33s.; March/April, 33s. 1½d.; May/August, 34s.

## LIVERPOOL.

January 21st.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, December 24th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| .. Candles, per pound ... ... ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, January 21st.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

PHILADELPHIA, January 21st.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, January 20th.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, January 20th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 37–37½ copecs per pood spot. Kerosene, 46–47 copecs. Residuals, 36¼–36½ copecs.

## ROUMANIA.

January 20th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 5·50–6·25 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bana ... | 9·50–10·80 |
| Paraffin ... ... ... ... | ... | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

January 20th.

Crude oil is quoted 8·58 kronen spot. Kerosene, 29½–30 kronen at Oderberg. Benzine, 690/700, 47 kronen; 700/710, 45 kronen, at Oderberg. Gas oil, 7·50–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date January 22nd as follows:—

The mills are now pretty well provided with orders for a month or two, and prices are firm as below:—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... 13/3—13/4½ | per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... 18/6—18/7½ | ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

Specially prepared for this Journal by the Customs House.

FOR THE WEEK ENDED JANUARY 19TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Jan. | LONDON— | | | |
| 13 | Port Authority | Lub. | 2,500 | Hamburg |
| 13 | Bereford & Co. | ,, | 1,000 | Baltimore |
| 13 | Scott's Wharf | ,, | 5,000 | New York |
| 14 | Port Authority | ,, | 480 | Marseilles |
| 14 | ,, | ,, | 810 | Hamburg |
| 14 | Page, Son & East | ,, | 400 | Antwerp |
| 14 | Asiatic Petroleum Co. | Benzine | 1,385,000 | Balek Pappan |
| 14 | ,, ,, | ,, | 345,000 | Rotterdam |
| 14 | Motor Petrol Association | ,, | 4,180 | Brussels |
| 15 | ,, ,, | ,, | 4.080 | ,, |
| 15 | Petrol Users' and Trades Supply Association | ,, | 39,200 | Braila |
| 15 | Anglo-American Oil Co. | Lub. | 16,800 | New York |
| 15 | ,, ,, | Lub. Gr. | 400 | ,, |
| 15 | S. Capon | Lub. | 2,400 | Philadel. |
| 15 | Anglo-Mexican Petroleum Products Co. | Fuel | 261,800 | P. Mexico |
| 15 | ,, ,, | Lamp | 224,000 | ,, |
| 15 | Asiatic Petroleum Co. | Crude | 220 | San Francisco |
| 15 | A. Duckham & Co. | Lub. | 2,080 | Antwerp |
| 16 | Port Authority | ,, | 210 | Hamburg |
| 16 | ,, ,, | ,, | 420 | ,, |
| 16 | Bowring Petroleum Co. | Lamp | 658,000 | P. Mexico |
| 17 | Anglo-American Oil Co. | Lub. | 20.000 | New York |
| 17 | ,, ,, | ,, | 20,400 | Philadel. |
| 17 | Lubricating & Fuel Oils Co. | ,, | 8,200 | ,, |
| 17 | Bramwell, Fern & Co. | ,, | 9.840 | ,, |
| 17 | Vacuum Oil Co. | ,, | 2,840 | ,, |
| 19 | W. M. Kidston & Co. | Lub. Gr. | 2,600 | ,, |
| 19 | Anglo-American Oil Co. | Lamp | 2,491,040 | New York |
| 19 | ,, ,, | Gas | 2,118.830 | ,, |
| 19 | Mercantile Lighterage Co. | Lub. | 9,200 | ,, |
| 19 | F. Chiesman & Co. | ,, | 2.200 | ,, |
| 19 | Scott's Wharf | ,, | 2.500 | ,, |
| 19 | S. Capon | ,, | 4.600 | ,, |
| 19 | Produce Brokers Co. | ,, | 2.600 | Baltimore |
| 19 | Port Authority | ,, | 1,430 | Hamburg |
| 19 | E. G. Boize | Lub. Oil and Gr. | 440 | ,, |
| 19 | British and Foreign Wharf | Lub. | 220 | Antwerp |
| 19 | L. Freeland | Lub. Gr. | 1,050 | ,, |
| | LIVERPOOL— | | | |
| 13 | D Currie & Co. | ,, | 40 | Hamburg |
| 13 | T. Wilson, Sons & Co. | M Colza | 590 | Amsterdam |
| 13 | J. T. Fletcher & Co. | Lub. | 390 | Antwerp |
| 13 | Worthington & Boler | ,, | 7,200 | New York |
| 13 | Anglo-American Oil Co. | ,, | 19,600 | ,, |
| 13 | W. B. Dick & Co. | ,, | 11.800 | ,, |
| 13 | ,, ,, | ,, | 22,480 | Philadel. |
| 13 | Bramwell Fern & Co. | ,, | 4,520 | ,, |
| 13 | F. Schofield & Co. | ,, | 2,800 | ,, |
| 13 | ,, | ,, | 4,000 | New York |
| 14 | Burnaby & Chantrell | Lub. Gr. | 310 | Hamburg |
| 14 | C. C. Wakefield & Co. | Lub. | 250 | ,, |
| 14 | Stockdale & Doel | ,, | 12.830 | Philadel. |
| 14 | White Star Line | ,, | 1.000 | New York |
| 15 | Rowand & Co. | ,, | 40 | Antwerp |
| 15 | Worthington & Boler | ,, | 2,640 | Alexandria |
| 16 | F. Schofield & Co. | ,, | 4,000 | New York |
| 16 | Huxley & Co. | ,, | 240 | Ghent |
| 19 | A. Hopps & Sons | Resid. | 2,600 | Halifax |
| 19 | C. W. Field | Lub. | 420 | Antwerp |
| | BRISTOL— | | | |
| 8 | Petrol Users', &c., Assoc. | Benzine | 81,000 | Braila |
| 13 | Ford & Canning | M. Colza | 2,390 | New York |
| 13 | ,, ,, | Lub. | 1,590 | ,, |
| 13 | C. Hill & Sons | ,, | 3,320 | ,, |
| 14 | B. Perry & Sons | ,, | 510 | Antwerp |
| 15 | W. G. Clarke | ,, | 240 | ,, |
| 15 | H. Matthews & Co. | Lub. Oil and Gr. | 600 | ,, |
| 15 | Heaton & Co. | Lub. | 430 | ,, |
| 15 | H. Pritchard & Co. | ,, | 5,250 | New York |
| 15 | J. R. Bush | ,, | 14,360 | ,, |
| 15 | O. Pragnell & Co. | ,, | 120 | Hamburg |
| 16 | Pickford's | Lub. Oil and Gr. | 280 | ,, |
| Jan. | CARDIFF— | | | |
| 17 | A. Payne & Co. | Lub. | 120 | Hamburg |
| 19 | Bristol Steam Navig. Co. | ,, | 1,000 | Antwerp |
| | GLOUCESTER— | | | |
| 19 | Bristol Steam Navig. Co. | ,, | 1,000 | Hamburg |
| | GRIMSBY— | | | |
| 13 | J. Sutcliffe & Son | ,, | 1,050 | Antwerp |
| | HARWICH— | | | |
| 13 | Great Eastern Railway | ,, | 660 | ,, |
| 16 | ,, ,, | ,, | 100 | ,, |
| | HULL— | | | |
| 13 | T. M. Roberts & Co. | Lub. Gr. | 280 | Hamburg |
| 13 | W Gilyott & Co. | Lub. | 52,400 | New York |
| 15 | Wilson's & N. E. Railway | ,, | 1,120 | Hamburg |
| 15 | ,, ,, | ,, | 1,920 | Antwerp |
| | MANCHESTER— | | | |
| 13/11 | Anglo-American Oil Co. | Fuel | 64.430 | Baton Rouge |
| 7 | British Petroleum Co. | Lamp | 28,540 | Port Arthur |
| 13 | C. H. Morton & Son | Lub. Gr. | 40 | Hamburg |
| 13 | F. Leyland & Co. | Lub. | 1,000 | New York |
| 13 | D. Currie & Co. | ,, | 2.340 | Hamburg |
| 13 | Pickford's | ,, | 120 | ,, |
| 13 | J. T. Fletcher & Co. | ,, | 1,000 | Antwerp |
| 15 | ,, ,, | Lub. Gr. | 120 | ,, |
| 16 | F. Schofield & Co. | Lub. | 16,000 | New York |
| 19 | D. Currie & Co. | Lub. Gr. | 3,180 | Hamburg |
| | MIDDLESBROUGH— | | | |
| 15 | E. Harris & Co. | Lub. | 800 | Antwerp |
| | NEWCASTLE— | | | |
| 10 | P. H. Matthiessen & Co. | ,, | 70 | Bergen |
| 15 | Tyne-Tees Steamship Co. | ,, | 1,320 | Hamburg |
| | ABERDEEN— | | | |
| 19 | R. C. Reid | ,, | 2,080 | ,, |
| | DUNDEE— | | | |
| 15 | D. Alexander & Sons | ,, | 1,400 | ,, |
| | GLASGOW— | | | |
| 13 | Clyde Shipping Co. | ,, | 2.000 | Antwerp |
| 13 | ,, | Lub. Gr. | 40 | ,, |
| 13 | Anchor Line | Lub. | 46,520 | New York |
| 14 | ,, | Lub. Gr. | 1,400 | ,, |
| 16 | ,, | Lub. | 400 | ,, |
| 19 | Donaldson Bros. | ,, | 52,090 | Baltimore |
| | LEITH— | | | |
| 15 | Jas. Currie & Co. | ,, | 1,320 | Hamburg |
| 17 | G. V. Turnbull & Co. | Lub. Oil and Gr. | 13,300 | Philadel. |
| | BELFAST— | | | |
| 13 | British Petroleum Co. | Lamp | 1,047,000 | Port Arthur |
| 15 | J. C. Pinkerton & Co. | Lub. | 800 | Hamburg |
| | CORK— | | | |
| 15 | P. Murphy & Co. | ,, | 120 | ,, |
| | | | 9,207,110 | |

**PUBLICITY.**

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*From Lloyd's* JANUARY 22ND, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□)

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Iquique | San Francisco | L. Jan. 3 |
| AMERICAN | Antwerp | New York | L. Jan. 16 |
| APPALACHEE* | Sunderland | New York | Arr. Jan. 8 |
| APSCHERON | Batoum & Kustendje | Venice | Pd. Dard. Jan. 28 |
| ARAL | Tyne | New York | Arr. Jan. 21 |
| ARAS | Hamburg | Blyth | Arr. Jan. 15 |
| ARCA | Cardiff | Kustendje | L. Algiers Jan. 18 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | L. Rotterdam Jan. 18 |
| ASHTABULA* | Antofagasta | San Francisco | Arr. Jan. 10 |
| ASTRAKHAN | Cette | Kustendje | Pd Constantinople Jan. 16 |
| AUREOLE | London | Norfolk, Va. | Arr. Jan. 11 |
| AZOV | Talara Bay | San Francisco | Arr. Jan. 12 |
| BAKU STANDARD | Kustendje | Hamburg | Arr. Jan. 16 |
| BALAKANI □ | Port Arthur, Texas | Manchester | Arr. Avonmouth Jan. 21 |
| BATOUM | London | Jacksonville | Arr. Amsterdam Jan. 18 |
| BAYONNE | Kustendje | Alexandria | Arr. Constantinople Jan. 14 |
| BEACON LIGHT | Kustendje | Invergordon | L. Malta Jan 18 |
| BLOOMFIELD | Galveston | Tuxpan | L. Jan. 18 |
| BORJOM | Trieste | Batoum | Arr. Dec. 29 |
| BRILLIANT (Br. Bq.) | Hiogo | Hong Kong & New York | L. Dec. 18 |
| BRILLIANT | Sabine | Swinemunde | L. Jan. 10 |
| BRITISH SUN | Hamburg | Philadelphia | 75 miles S.E. of Brow Hd. Jan. 10 |
| BROADMAYNE | New York | Calais | L. Jan. 13 |
| BUFFALO | Mi-ike | San Francisco | L. Jan. 5 |
| BULLMOUTH △ | Singapore | Balek Pappan | L. Jan. 15 |
| BULYSSES | Bombay | Kurrachee | Arr. Jan 18 |
| BURGERMEISTER PETERSEN | Stockholm & Tyne | New York | Pd. Dunnet Hd. Jan. 10 |
| BUYO MARU | Calcutta | Rangoon | L. Dec. 27 |
| C. A. CANFIELD* | Tampico | Tampa | Arr. Jan. 11 |
| CALCUTTA (Br. Bq.) | San Francisco | Yokohama | Arr. ab't Jan. 12 |
| CAMILLO | Portsmouth | Port Arthur | L. Dec. 27 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | Thames Haven | Batoum | Pd. Constanti- Jan, 18 |
| CARPATHIAN □ | Port Arthur | Hamburg | Pd. Dover Jan. 20 |
| CAUCASIAN □ | Port Arthur | London | Arr. Jan. 9. In port Jan 21 |
| CHARLES E. HARWOOD | New Orleans | Sabine | Cl. Jan. 12 |
| CHARLOIS | Rotterdam | Sabine | Pd. Dover Jan. 9 |
| CHATHAM | Tampico | Tampa | Arr. Jan. 11 |
| CHESTER | Antwerp | New York | Pd. Lizard Jan. 17 |
| CHEYENNE | Tyne | Norfolk, Va. | Pd. Cape Wrath Jan. 20 |
| CHIRA (Tug) | — | — | Coasting Peru and Ecuador |
| CIRCASSIAN PRINCE | — | — | T. W.C. South America |
| CITY OF EVERETT | New York | Port Arthur | Arr. Jan. 12 |
| CLAM △ | Tyne | Suez | Off Malta Jan. 18 |
| CLEARFIELD | — | Tuxpan | Arr Jan 8 |
| COMANCHEE | Manchester | New York | Pd. Old Hd. of Kinsale Jan. 12 |
| CONCH △ | Suez | Aroe Bay | Pd. Perim Jan. 6 |
| CONRAD MOHR | Tyne | Philadelphia | L. Jan. 20 |
| CORDELIA | San Francisco | Taltal | L. S. Luis Dec. 4 |
| COWRIE △ | San Francisco | Shanghai | Put back San Francisco after being ashore |
| CURRIER | Mobile | Port Arthur | L. Jan. 15 |
| CYMBELINE | Newport | Port Arthur | L. Jan. 8 |
| CZAR NICOLAI II. | Batoum | Thames Haven | Pd. Gib. Jan. 21 |
| DAGHESTAN | Batoum | Rouen | Arr. Jan. 13 |
| DANUBIAN □ | Amsterdam | Port Arthur | Pd. Sand Key Jan. 21 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Pd. St. Helena Jan. 20 |
| DELAWARE* | Thames Haven | Novorossisk | Cl. Constantinople Jan. 15 |
| DELPHIN | Rostock & Tyne | Baton Rouge | Abeam Niton Jan. 11 |
| DERBENT | Messina | Batoum | Arr. Jan. 18 |
| DESALBA | Tyne | Port Harford (Calif.) | Pd. Falklands Islands Dec. 30 |
| DEUTSCHLAND | Baton Rouge | Rotterdam | Arr. Jan. 18 |
| DIAMANT | Tyne | New York | Pd. Cape Wrath Jan 15 |
| DONAX | Barrow | — | L. Jan. 13 |
| EBURNA | Suez | Abadan | L. Jan. 20 |
| EDWARD L. DOHENEY | Tampico | Philadelphia | Arr. Jan. 15 |
| EL LOBO | San Francisco | Callao | L. Jan. 8 |
| EL SEGUNDO | Vancouver | San Francisco | L. Astoria Dec. 25 |
| EL TORO | Tyne & London | Galveston | Arr. Bermuda Jan. 12 |
| ELAX △ | New Orleans | Trieste | L. Newport News Jan 8 |
| ELISE MARIE | Helsingborg & Tyne | Philadelphia | Pd. Dunnet Hd. Jan. 12 |
| ELSINORE | Emden | Galveston | Pd. Dover Dec. 21 |
| EMANUEL NOBEL | Antwerp | Batoum | Pd. Sagres Jan. 19 |
| ENERGIE | New York | Tuxpan | Arr. Jacksonville Jan. 22 |
| ERIVAN | Batoum | Dunkirk | L. Algiers Jan. 14 |
| ESCALONA | New Orleans | Tampico | L. Jan. 15 |
| ESTURIA | Singapore | Aomori | L. Jan. 18 |
| EUPION | Alloa | Sunderland | Arr. Nov. 28. In port Dec. 31 |
| EUPLECTELA △ | Singapore | Shanghai | L. Jan. 8 |
| EXCELSIOR | Rotterdam | New York | Arr. Jan. 20 |
| F. A. TAMPLIN | Norfolk, Va. | Barrow | L. Jan. 16 |
| FRANCE MARIE (Belgian Ship) | Tampico | Port Arthur | L. Dec 16 |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans | Tampico | In port New Orleans Jan. 6 |
| GENESSE* | Philadelphia | Avonmouth | Arr. Jan. 22 |
| GEORGIAN PRINCE | Port Arthur | — | L. Jan. 12 |
| GOLDMOUTH △ | Thames Haven | Malta | Arr. Dartmouth Jan. 21 |
| H. C. HENRY | Balek Pappan | Rotterdam | Arr. Jan. 7 |
| HAGEN | New York | Hamburg | Arr. Dec. 30. In port Jan. 16 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | Tocopilla | San Francisco | Arr. Jan. 14 |
| HARRY LUCKENBACH | Galveston | Tampa | L. Jan. 11 |
| HELIOS | New York | Rotterdam | L. Jan. 8 |
| HERA | Emden | Philadelphia | Arr. Jan. 19. |
| HERBERT G. WYLIE | Galveston | Tampa | L. Dec. 23 |
| HERMIONE | Port Arthur | Portsmouth | L. Norfolk, Va., Jan. 17 |
| HESPERUS | Taltal | Callao | Arr. ab't Jan. 16 |
| HORLEY | Tampico | Baltimore | Arr. Jan. 15 |
| HOTHAM NEWTON | Hull | Batoum | L. Jan 21 |
| HYRCANIA | Port Arthur | Avonmouth | Pd. Fastnet Jan. 22 |
| ILLINOIS | New Orleans | Antwerp | Cl. Jan. 13 |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IROQUOIS (Towing Barge Navahoe) | New York | London | Arr. Jan. 19 |
| J. B. AUG. KESSLER | Rangoon | — | Pd. Gib. Jan. 17 |
| J. OSWALD BOYD | Clyde & Manchester | Tampico | Arr. Jan. 6 |
| JULES HENRY (Fr. Bq.) | Rotterdam | Amsterdam | Arr. Nov. 23. In port Jan. 19 |
| JUNO | Palembang | Miri | Arr. Dec. 28 |
| KANAKUK | Bombay | Singapore | Arr. ab't Jan. 2 |
| KASBEK | Philadelphia | Hamburg | Pd. Delaware B'water Dec. 30 |
| KIOWA | Rotterdam | New York | Off the Wight Jan. 2 |
| KIO MARU | Valparaiso | Hong Kong | L. Honolulu Dec. 14 |
| KOMETA | Spezia | Novorossisk | Cl. Constanti- Jan. 16 |
| KREMLIN | Batoum | Genoa | Pd. Dard. Jan. 15 |
| KURA | Antwerp | Philadelphia | Arr. Jan. 16 |
| LA CAMPINE | Antwerp | New York | Pd. Prawle Pt. Jan. 6 |
| LA FLANDRE | Antwerp | Sabine | L. Jan. 21 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | New York | Antwerp | L. Jan. 10 |
| LACKAWANNA* | New York | Manchester | L. Jan. 12 |
| LE COQ □ | Tyne | New York | Arr. Jan. 21 |
| LEDA | Tyne | Baton Rouge | L. Jan. 13 |
| LOKI | Philadelphia. | Hamburg | Arr. Dec. 21. In port Jan. 16 |
| LUCELLUM | Bussorah | Sheerness | Pd. Dover Jan. 19 |
| LUCERNA | Suez | — | Pd. Gib. Jan. 17 |
| LUCIGEN | Port Arthur | Portsmouth | L. Sewall's Point, Jan. 15 |
| LUCILINE □ | Rouen | Philadelphia. | Pd. Lizard, Jan. 19 |
| LUMEN | Marseilles | Kustendje | L. Jan. 17 |
| LUTETIAN □ | New York | Cette | Arr. Jan. 19 |
| LUX □ | Tyne | New York | Arr. Jan. 19 |
| LUZ BLANCA | Payta | Callao | Arr. ab't Jan. 5 |
| MAKKAVEI | Salonica | Kustendje | Cl. Constantinople. Jan. 13 |
| MANNHEIM | Philadelphia. | Aarhus | Pd. Dunnet Hd. Jan. 21 |
| MARGARETHA | Philadelphia. | La Pallice | Pd. Delaware B'kwater Dec. 31 |
| MASCONOMO | San Francisco | Muroran | L. Dec. 27 |
| MASSASOIT | Calcutta | San Francisco | Arr. ab't Jan. 15 |
| METEOR | Vladivostock. | — | Arr. Singapore ab't Jan. 12 |
| MEXICAN PRINCE | Tsingtau | Shanghai | Arr. Dec. 31 |
| MIJDRECHT | Havre | Kustendje | Arr. Jan. 15 for Lond'n & Hamb'g |
| MINA BREA | Callao | San Francisco | Arr. Dec. 22 |
| MIRA | Savona | Philadelphia. | Arr. Jan. 16 |
| MITRA | Port Said | Abadan | L. Suez Jan. 16 |
| MOHAWK* | New Orleans | Tuxpan | Cl. Jan. 7 |
| MOHICAN | Copenhagen | Port Arthur | Pd. Sand Key Jan. 19 |
| MUREX △ | Karatsu | Balek Pappan | L. Jan. 15 |
| NARRAGANSETT | London | New York | Pd. Southend Jan. 13 |
| NATICA | Rotterdam | Singapore | Arr Jan. 18 |
| NELSON | New York | Jucaro | 665m. S. Scotland Light Jan. 1 |
| NEW YORK* | Rotterdam | New York | Pd Scilly Jan. 12 |
| NIAGARA | Shanghai | San Francisco | Arr. Jan. 19 |
| NORMAN BRIDGE | Sabine | Tampico | 243 miles S.W. Sabine Jan. 10 |
| OBERON | Tocopilla | San Francisco | Arr. ab't Jan. 16 |
| OCEAN | Amsterdam | Sabine | L. Norfolk, Va., Jan. 8 |
| OILFIELD | Savona | Batoum | L. Jan 18 |
| OKLAHOMA | New York | Port Arthur. | Abandoned S. of Sandy Hook |
| ORIFLAMME □ | Kustendje | Rouen | Arr. Jan. 19 |
| OSAGE | New York | Tuxpan | Pd. Sand Key Jan. 6 |
| OTTAWA* | Sabine | Dublin | L. Newport News Jan. 6 |
| OURAL | Alexandria | Kustendje | Arr. previous Jan. 20 |
| PALEMBANG | Calcutta | Rangoon | L. Jan. 16 |
| PATELLA △ | Singapore | Gibraltar | L. Port Said Jan. 20 |
| PAUL PAIX | New York | Norfolk, Va. | L. Jan. 7 |
| PAULA | Swinemunde. | Hamburg | Arr. Nov. 24. In port Jan. 11 |
| PAWNEE | New York | Lisbon | L. Jan. 14 |
| PECTAN | San Francisco | Taltal | Arr Jan. 6 |
| PENNOIL | Port Arthur. | Rotterdam | Arr Jan. 19 |
| PETROLEINE | Pauillac | New York | L. Jan. 11 |
| PETROLEUM | Portland | Port Arthur | Pd. Sand Key Dec. 23 |
| PHOEBUS | San Francisco | Pisagua | L Jan. 3 |
| PINNA □ | New Orleans | Amsterdam | Arr. Plymouth Jan. 22 |
| PONUS | San Francisco | Orient | L. Dec. 13 |
| POTOMAC* | London | New York | 82 m. W. Land's End Jan. 10 |
| POWHATTAN | San Francisco | Bombay | L. Dec. 28 |
| PROMETHEUS | San Francisco | Antofagasta | L. Jan. 13 |
| PRUDENTIA | Guanica | New York | Arr. Jan. 7 |
| PURELIGHT | Hamburg | Philadelphia. | Pd. Dunnet Hd. Jan. 16 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | L. Jan. 18 |
| RADIOLEINE | Rouen | Port Arthur | L. Dartmouth Jan. 8 |
| RANELLA | Soesoe | Singapore | L. Jan. 18 |
| RENDOVA (Br. Bq.) | New York | Seville | L. Alicante Jan. 11 |
| RICHMOND | San Francisco | Seattle | Arr. Dec. 28 |
| RION | Hamburg | Blyth | Arr. Jan. 18 |
| ROCK LIGHT □ | Tees | New Orleans | L. Fayal, Jan. 8 |
| ROMANY △ | Batoum | Aroe Bay | L. Colombo Jan. 16 |
| ROSALIND | Port Arthur | Sheerness | Arr. Portland, Dor., Jan. 20 |
| ROTTERDAM | Amsterdam | New York | Arr. Jan. 19 |
| ROUMANIAN □ | Kustendje | Hull | Pd. Dover Jan. 20 |
| ROUMANIAN PRINCE | Port Arthur | Italy | L Jan. 5 |
| RUSSIAN PRINCE | Port Aransas | Tampico | L. Jan. 10 |
| SALAHADJI △ | Sydney | Balek Pappan | L. Melbourne Jan. 17 |
| SAMOSET | San Francisco | Mi-ike | L. Dec. 17 |
| SAN ANTONIO | — | — | T. Mexican Coast |
| SAN BERNARDO | — | — | T. Mexican Coast |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | London | Puerto Mexico | Pd. Azores Jan. 15 |
| SAN EDUARDO | Kustendje | London | Arr. Jan. 7. In port Jan. 20 |
| SAN FRATERNO | New York | Sheerness | Pd. Dover Jan. 21 |
| SAN GREGORIO | Rotterdam | New York | 75 miles W. of Scilly Jan. 21 |
| SAN HILARIO | Tyne | Borneo | Pd. Perim Jan. 21 |
| SAN JOAQUIN | Tyne | San Francisco | L. Dec. 28 |
| SAN RICARDO | Balek Pappan | Perim | L. Colombo Jan. 13 |
| SAN SILVESTRE | New York | Avonmouth | Arr Jan. 20 |
| SAN TIRSO | Tuxpan | New York | Arr. Jan. 21 |
| SAN URBANO | Thames Haven | Gravesend | Arr. Jan. 20 |
| SAN VALERIO | Tuxpan | New Orleans | Arr. Jan. 15 |
| SANTA MARIA | Hilo | San Francisco | Arr. Dec. 12 |
| SANTA RITA | — | Port San Luis | Arr. Dec. 28 |
| SATANTA | Singapore | San Francisco | Arr. Jan. 14 |
| SAXOLEINE | Rouen | — | Pd. Flambro' Hd. Jan. 22 |
| SEQUOYA | San Francisco | Moji | L. Dec. 21 |
| SERVIAN □ | Belfast | Port Arthur | L. Jan. 16 |
| SHABONEE | Calcutta | Singapore | Arr. ab't Jan. 12 |
| SILVIA | Portsmouth | Tyne | Arr. Jan. 7 |
| SIOUX | Buenos Aires | San Francisco | Arr. Taltal Jan. 11 |
| SIRIUS (Ger.) | New York | London | L. Jan. 14 |
| SOCONY | New York | Port Arthur | L. Dec. 27 |
| SOYO MARU | Persian Gulf. | — | Pd. Aden Jan. 19 |
| SPLENDOR | Messina | Philadelphia. | Pd. Gib. Jan. 6 |
| STAG | Antilla | Hull | L. Jan. 6 |
| STANDARD | Kustendje | Portico | Arr. Jan. 19 |
| STROMBUS △ | Port Arthur | Sheerness | Arr. Portsmouth Jan. 21 |
| SULTAN VAN LANGKAT △ | Abadan | Suez | L. Jan. 13 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4. In port Jan. 20 |
| SURAM | Copenhagen | Blyth | Arr. Jan. 16 |
| SUWANEE* | Sunderland | New York | Pd. Lizard Jan, 3 |
| SVIET | Rouen | Batoum | Cl. Constantinople Jan. 14 |
| TASCALUSAH | New York | Port Said | L. Jan. 12 |
| TATARRAX | Clyde | New York | Arr. Jan. 18 |
| TEAKWOOD | Bristol | Barry | Arr. Jan. 18 |
| TECUMSOH | New York | Tampico | L. Jan. 2 |
| TELENE △ | Tyne | New Orleans | Pd. Dungeness Jan. 12 |
| TEREK | New Orleans. | London | Pd. Delaware B'kwater Jan. 11 |
| TEXAS | Port Arthur | Bayonne, N.J. | L. Jan. 9 |
| TIFLIS | Naples | Batoum | L. Jan. 18 |
| TONAWANDA* | Sunderland | New York | Pd. Dunnet Hd. Jan. 15 |
| TRINCULO | San Francisco | Tocapilla | L. Port San Luis Jan. 7 |
| TRINIDADIAN | New York | Tampico | 390 miles E. of Tampico Jan. 11 |
| TRITON | Baton Rouge | Hamburg | Arr. Dec. 27. In port Jan. 16 |
| TROCAS △ | Soesoe | Singapore | Arr Jan. 14 |
| TURBO | Rangoon | Gibraltar | L. Port Said Jan. 15 |
| UNCAS | San Francisco | Hong Kong | L. Dec. 29 |
| VEDRA | Philadelphia. | Bremerhaven | Pd. Isle of Wight Jan. 22 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Philadelphia. | Spoken Dec. 19 38 N. 18 W. |
| VITRUVIA | Ardrossan | New York | Arr. Jan. 15 |
| VOLCANUS | Singapore | Palembang | L. Jan. 14 |
| VOLUTE △ | Balek Pappan | Singapore | L. Jan. 15 |
| WABASHA | San Francisco | Tientsin | L. Dec. 13 |
| WANETA | Tampa | Tampico | 200 m. W. Egmont Key Jan. 5 |
| WAPELLO | Manchester | New York | Arr. Jan. 16 |
| WASHINGTON | Vallo | Tyne | Arr. Jan. 19 |
| WEEHAWKEN | London | Cienfuegos | Pd. Dover Jan. 7 |
| WIELDRECHT | Vlaardingen | Kustendje | Pd. Dard. Jan. 20 |
| WILLIAM F. HERRIN | San Francisco | Monterey | L. Dec. 10. |
| WILLKOMMEN | Hamburg | New York | L. Jan. 20 |
| WINAMAC | Port Said | Bombay | Arr. ab't Jan. 7 |
| WOTAN | Hamburg | New York | 40 m. E. Land's End Jan. 20 |

# The Petroleum Review.

*Founded by* PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### Mexican Oil in Texas.

QUITE an important oil trade has sprung up between Mexico and Texas, and regular shipments of Mexican oil are now being received at various Texas ports. During the past twelve months, over 130,000,000 gallons of Mexican oil was received at Galveston, Texas, as compared with under 20,000,000 gallons for the previous year. The Texas Company, the Huastica Oil Company, and the Morgan line are running weekly services of vessels for the trade, the latter concern utilising the new oil tanker "Topila," which has been expressly built for the trade. The Mexican oil is usually utilised for supplying nearly all the harbour and light draft vessels with liquid fuel, but the vessels of the Morgan line consume large quantities. The railways of Texas are also using Mexican oil for fuel. It is evident therefore that great as has been the progress made in the importation of Mexican oil into Texas, it will assume a far more important character during the present year.

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### An Ingenious Submarine Pipeline.

MEXICO can lay claim to possessing the first submarine oil pipeline in the world, and what is even more important is the fact that it answers its purpose most satisfactorily. The necessity for laying the submarine pipeline made itself apparent when Tuxpan was decided upon as one of the chief ports for the export of Mexican oil, this spot being about 100 miles south of Tampico and 150 miles north of Vera Cruz. A submarine pipeline has been laid out about two miles from the shore line, and the outer end anchored. From this a flexible hose reaches the surface, held in place by a buoy. The oil tanker to be loaded is anchored by a bow line and a stern line; the end of the flexible hose is coupled on the pipe leading to the tanks of the vessel, and a signal starts the pumps at the shore station. The plan has worked very successfully so far, and is being watched closely by persons interested in the transportation of oil, not only in Mexico, but elsewhere. The ships lie in the open roadstead during suitable weather, and are loaded as rapidly as if receiving the oil while made fast to a wharf. There were, naturally, many difficulties to overcome in laying this submarine pipeline, but a scheme was developed that worked successfully. The pipeline was laid on the shore, and hauled into position in the water of the bay by powerful tugs. The Tuxpan station is now delivering more oil than is being loaded in the port of Tampico for marine shipments. At present there are three pipelines delivering oil to vessels at the Tuxpan station in a very satisfactory manner, and other like stations are under consideration.

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### The Future of the Fields of Calgary.

THERE appears every reason to believe that the Calgary district of Canada will justify itself as a very prolific oil region, for from conversations we have had with several gentlemen who have visited the locality, it would appear that every visitor is greatly impressed with the potentialities of Calgary as a prospective oilfield of no mean order. Even the Dominion Government views the district in such a favoured light that it has dispatched one of its geologists from the Bureau of Mines to make a thorough study of the field and its prospects in order that the Government may be kept fully in touch with Calgary's possibilities. Oil men are enthusiastic over the prospects, and already a real boom in serious development work has set in. There is no doubt that if a successful oilfield springs up in the Calgary district, it will be a distinct asset to the Canadian Dominion, whose production of crude oil, in spite of the bounty offered by the Government, shows signs of consistent decline.

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### Baku and its Crude Oil Production.

THOUGH only preliminary figures are available, it is now reasonable to assume that the total crude oil output of the Baku fields during the past twelve months did not exceed 380,000,000 poods, or a little over 6,000,000 tons. This total compares unfavourably with the yield for the previous twelve months, low as this was, for it amounted to under 420,000,000 poods, while for the year 1910 the output reached 480,000,000, and for the following twelve months 425,500,000 poods. Thus we have a record of low production from Baku, the prime factor which has necessitated the import of foreign oils in order to meet the requirements for liquid fuel for the Russian railways. Last year's output, however, was necessarily restricted on account of the strikes during July and August, for had these not taken place, it is safe to assert that the production would almost have been equal to that of the preceding twelve months. It is clear, however, that the Baku fields have seen their best days so long as the production is drawn from the present strata, while a deep-drilling programme, which would be very costly, is almost out of the question, generally speaking. It now rests with the Government to seriously consider the position of Baku's industry of oil production, and to frame such measures as will render the expenditure of additional finance in oil exploitation profitable. Once the Government shows its goodwill in this respect the rest is unquestionable.

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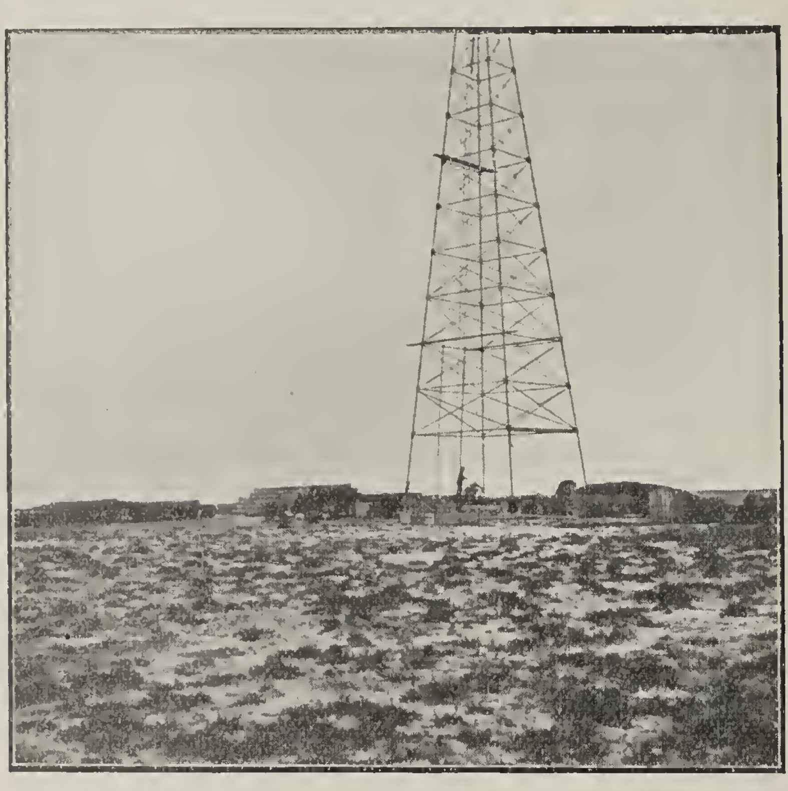
## STEEL TUBULAR DERRICKS IN THE RUSSIAN FIELDS.

The photograph here reproduced shows one of the 80 ft. Niell patent steel tubular derricks manufactured by Messrs. Lee C. Moore & Co., of Pittsburgh, recently erected in the Urals. These steel tubular derricks, though comparatively little used in the Continental fields, are very popular in the States, where nearly one thousand are in regular use. The strength and portability of these derricks are specially put forward to claim the attention of oil operators. There are no screwed joints, the derrick being assembled with clamps and bolts, and it can be erected or taken down in one day by three men.



The derrick here shown, together with others, was supplied by Messrs. Gillespie & Co., London, E.C.

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**Change of Address.**—Our readers will kindly note that, commencing next week, the Vienna office of the Galizische-Karpathen Petroleum A.G. (late Bergheim & MacGarvey) will be I Graben 29 (Trattaerhof).

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**A New Publication.**—We have received a copy of the first issue of the *Petroleum Age*, a particularly smart publication issued by the General Service Publishing Company of New York. The new journal is compiled upon unique lines, and contains a wealth of information upon oil subjects, including a special European letter. We wish the *Petroleum Age* every possible success.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended January 24th was 127,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended January 25th was 279,680 poods, or about 4,511 tons. The total production for the year from January 14th to January 25th was 478,400 poods, or about 7,716 tons. The total production for the corresponding period last year was 464,770 poods, or about 7,496 tons. Price of crude oil at Baku is now 38 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended January 24th was 19,863 poods, or 320 tons.

European Oilfields Corporation, Ltd. — The production for the week ended January 25th was 104,600 poods.

Baku Russian Petroleum Company, Ltd.—The production for the week ended January 24th was 128,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended January 24th was 22,900 poods (369 tons).

Maikop New Producers, Ltd.—Production for week ended January 17th was 6,000 poods (97 tons).

British Maikop Oil Company, Ltd.—Production for week ended January 25th was 15,244 poods, or 246 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended January 24th, 107,051 poods, or 1,727 tons.

North Caucasian Oil Fields, Ltd.—The latest production for week ended January 27th was 356,571 poods, or 5,751 tons. Corresponding period last year, 1,618 tons.

Bibi-Eibat Petroleum Company, Ltd.—Production for the week ended January 25th was 95,966 poods, or 1,548 tons.

Maikop Midland.—Production at Krimskaya for week ended January 24th was 4,000 poods, or 65 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended January 24th was 14,642 poods (236 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended January 24th was 1,035 poods (17 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended January 24th was 2,500 poods, or 40 tons.

**GERHARD & HEY,**
**OILFIELDS SHIPPING AGENTS,**
**Great St. Thomas Apostle**
(Off Cannon Street).
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**LONDON, E.C.**

# America's New Oil Export Organisation.

## The Independent Refiners Create a Corporation to Export Refined Petroleum Products.

### Interview with Mr. Donald Slingluff.

*Special to the* PETROLEUM REVIEW.

The Review is now in a position to make material additions and amplifications to the exclusive statement which it published in its last issue respecting the formation of a new corporation for the export of American refined petroleum products, for during the present week we have been fortunate enough to have an interview with Mr. Donald Slingluff, of New York—a gentleman who has taken part in bringing the new organisation of Kansas and Oklahoma independent refiners into being, and who at the present time is upon a brief visit to this country in regard to perfecting the arrangements already made.

In reply to our representative Mr. Slingluff said that for many months—if not years—past there had been a growing feeling on the part of the independent refiners in Oklahoma and Kansas that a combination among themselves for export was essential to future progress and prosperity, but the great difficulty had been to get the chief refiners into line. It was easy for each one to see the present difficult position in which they were placed, and comparatively easy for them to appreciate a way out of the difficulty, yet it was quite another matter to get several of the largest refiners to agree to "toe the line" and fix upon a policy which would meet their whole-hearted approval.

As a result, however, of persistent effort Mr. Slingluff was able to successfully carry through negotiations which have resulted in the formation of the Export Oil Corporation, which is owned by eight of the largest refiners in the Mid-continental fields. The officers have been decided upon, the president of the Phœnix Refining Company, Mr. James King Duffy, being the president of the corporation, while Mr. Charles A. Braley, president of the Chanute Refining Company, is the first vice-president, and Mr. Slingluff himself the second vice-president. As to the other officers, Mr. C. F. Martin, of the Chelsea Refining Company, is to be the secretary, and Mr. E. Constantine, of the Tulsa Refining Company, the treasurer. An executive committee, explained Mr. Slingluff, has also been elected, who will dictate the policy of the new corporation, and this committee includes Messrs. Duffy and Constantine, Mr. J. B. Todd, of the Ponca City and Oklahoma City Refining Companies, Mr. E. E. Shock, of the Indiahoma Refining Company of Okmulgee, and Mr. H. M. Evans, of the Cushing Refining Company.

"The prime object of the new corporation," said Mr. Slingluff, "is to export the products from Mid-continent oil, and these will include kerosene, solar oil, motor spirit and liquid fuel. There is no doubt that the time is ripe for such a movement. This is seen by the progress which the new combination has already made, several important transactions having already been concluded."

"Is it the intention of the Export Oil Corporation to market the oil in various European countries?" queried the Review representative.

"Oh, no," answered Mr. Slingluff. "The corporation is simply one for export purposes. It will sell the various products f.o.b. New Orleans, where it has leased immense bulk installations from the Indian Refining Company, but beyond that it will have nothing to do with either the transport or marketing of them. Our main offices for administration purposes will be at Tulsa, which is a central point for the various refineries, but our operating offices will be in New York."

"Can you give my readers any idea of the quantities of petroleum products you will be in a position to dispose of?" we asked.

"For the present the allied refiners are treating 20,000 barrels of crude oil per day, and this is equivalent to about one million tons per annum, a great part of which is consumed at home. You will therefore see," continued Mr. Slingluff, "that the new Export Oil Corporation has a very substantial backing, and is in a position to sell f.o.b. New Orleans any reasonable quantity of refined petroleum products."

"As a matter of fact," he proceeded, "the corporation is at the moment in negotiation with interests in various European countries, and already substantial quantities have been definitely purchased. Our storage facilities, belonging to the Indian Refining Company, can easily accommodate 30,000 tons at seaboard, and these are connected up with the refineries, which in turn have their own crude oil gathering lines in the producing fields."

"The Export Oil Corporation therefore enters upon its commercial career under the best of auspices?"

"Absolutely," answered Mr. Slingluff. "We are already assured of permanent success, for think of the immense advantage of having one organisation—quite independent in its character—which is in a position to satisfy any reasonable demand for petroleum products. So far, the bulk oil trade has been run by one or two large interests, and it has been impossible for purchasers to get outside this ring, but henceforth this difficulty will be obviated, for the corporation is in a position to quote for practically any quantities of petroleum products, from the lightest motor spirit down to liquid fuel."

"And as to prices? Will your corporation attempt to undersell the other companies?"

"No, that is not our desire at all. We shall run upon ordinary market lines, our idea being not to be above nor below our competitors. We are simply appearing on the market as sellers of high-class refined oil products on behalf of the largest independent refiners in the Mid-continental fields, who heretofore have not had an adequate opening for their products."

In conclusion Mr. Slingluff stated that the oils were being offered in Europe by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C., who have been appointed agents for the lubricating oils of the Indian Refining Company of New York.

# MISCELLANEA.

## THE OIL REGIONS OF TIMOR.

In reporting to the American Bureau of Foreign and Domestic Commerce upon the Timor Oilfields, Consul-General Anderson at Hong-Kong states that experts report prospects of a considerable supply of oil from Timor in the near future, a strong flow being expected at a depth of 1,200 to 1,500 ft. The oil yields a high-grade kerosene. Tested by the Hong-Kong Government oil obtained on the property of the Hong-Kong Company showed a flashing point (Abel close test) of 112° F. and had a specific gravity of 0·8403. British tests of oil from other concessions have shown 64·6 per cent. of kerosene and about 30 per cent. of intermediate lubricating oils. Pools of black viscid oil found on the surface of the island have given oil suitable for fuel, and on much of the island limestone coated with bitumen and ozoceride is found on the surface, which yields 24 per cent., by weight, of crude heavy oil.

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## THE STANDARD OIL COMPANY'S NEW DIRECTORS.

At the annual meeting of the stockholders of the Standard Oil Company of New Jersey, held recently, Messrs. F. D. Asche and S. B. Hunt were elected to the directorate as successors to the late Mr. James A. Moffett and Mr. Charles M. Pratt (who had resigned to give his attention entirely to his personal affairs). Mr. Asche began his career in the oil industry in the service of the Pratt works in Brooklyn and has been associated with the Standard Oil Company for more than twenty years, the last ten of which have been in the foreign department. Mr. Hunt has been identified with different branches of the Standard service during his connection with the industry, covering a period of more than twenty years. He has been particularly interested in the manufacturing department.

Mr. A. C. Bedford, chairman of the board, in reply to a question concerning the company's earnings during the past year, stated that full reports of the company's operations for 1913 would not be available for fully six months, but casually Mr. Bedford stated, says the *Oil Paint and Drug Reporter*, that he could assure the stockholders that the earnings last year were as good as, if not better, than those in 1912. He believed that 1913 had been a good year for oil companies generally. While prices for the refined products were higher, the margin of profit had been curtailed by the advanced cost of crude.

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## LAUNCH OF THE "EL ZORRO."

The s.s. "El Zorro," which is being constructed at the Neptune Works, Newcastle-on-Tyne, of Swan, Hunter & Wigham Richardson, Ltd., was launched on Monday last.

The steamer is of the latest type for carrying oil in bulk, and is fitted with all the most modern improvements for her service. She is 420 ft. in length by 54½ ft. beam, and will carry over 9,000 tons of oil in twenty oil holds, arranged two abreast, with two coffer dams and two pump rooms. There is, in addition, a cargo hold forward, together with a deep tank for water ballast, and water ballast will also be carried in the fore and aft peaks. She is being built to attain the highest class in Lloyd's Register.

The propelling machinery consists of a set of triple-expansion engines supplied with steam from three large boilers, arranged either to burn coal or to use oil fuel on the Wallsend-Howden system. The machinery is fitted aft, and both engines and boilers, as well as hull, are being built at the Neptune Works of Swan, Hunter & Wigham Richardson, Ltd.

The deck and auxiliary machinery is very complete, including steam windlass, steam steering gear, steam winches, electric light, fans, etc. There is also a complete system of heating-pipes throughout the oil holds.

The naming ceremony was gracefully performed by Mrs. J. B. Wimble, wife of Mr. J. B. Wimble, of the firm of Messrs. C. T. Bowring & Co., of London. Mr. Wimble is a director of the Lobitos Oilfields, Ltd., the company for which the boat is being constructed. Besides there were present, amongst others, Mr. Barringer and Mr. Bradney, representing Messrs. Jacobs & Barringer, consulting engineers, of London, under whose superintendence the vessel is being built.

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## THE ALEXANDRA DOCKS, NEWPORT (MON).

### Admirable Sites for Bulk Oil Storage Installations.

Now that there is a general tendency for the large importing and distributing companies of petroleum products to extend their bulk storage installations both at coastal points and in inland centres, we would draw particular attention to the advantages offered by the Alexandra Docks, Newport (Mon.), whose deep water area of over 135 acres is the largest single sheet of deep-water dock accommodation in the world.

The Review officially understands that the new lock entrance, which is 1,000 ft. long by 100 ft. broad, will be opened in a few months' time, when, without a doubt, a new era in the commercial history of Newport will be inaugurated. There is ample room abutting the Alexandra Docks for the erection of storage facilities for bulk oil products, and in view of the growing use of all petroleum products, especially in the industrial centres of South Wales and the Midlands, it is a matter which admits of no two opinions that Newport will become a most important centre for the distribution and storage of oil in the near future.

The local authorities are also fully alive to the advantage of receiving increased shipments of oils and other products locally, and a development committee has been formed to foster and encourage large firms to pay special attention to the advantages of Newport under the new conditions. It may, therefore, safely be assumed that bulk oil storage companies will find it considerably to their advantage to consider the erection of installations at or near the Alexandra Docks, since they are promised every assistance, not only by the Docks Company, but also by the local authorities.

# THE AMERICAN PETROLEUM INDUSTRY.

## DETAILS OF PRODUCTION DURING 1913.

ACCORDING to Dr. David T. Day, chief of the U.S. Geological Survey, the remarkable output of petroleum during each year in the American fields was more than maintained in 1913. The amount produced in the past twelve months exceeded 240,000,000 barrels. The production in 1912, which made the record up to that time, was 222,113,218 barrels. The rate of increase in 1913 was greater at the end of the year than at the beginning. California increased at least 10,000,000 barrels over 1912, almost reaching 100,000,000 barrels. The consumption in California almost equalled the production, and the addition to stocks was very slight. Oklahoma also showed a very significant increase, with about 6 per cent. addition to the stocks. Texas and Louisiana likewise increased their production. The output of the Gulf field declined, but this was more than offset by the increase in Northern Louisiana and Texas. Wyoming showed a significant increase from the Salt Creek field. Other States generally showed a decline, which was greatest in Illinois.

The following is an estimate, in barrels, of the production in 1913, compared with the statistics for 1912 :—

| State. | 1913. | 1912. |
|---|---|---|
| California | 98,000,000 | 86,450,767 |
| Oklahoma | 62,500,000 | 51,427,071 |
| Illinois | 22,000,000 | 28,601,308 |
| Texas | 14,000,000 | 11,735,057 |
| Louisiana | 12,000,000 | 9,263,439 |
| West Virginia | 11,000,000 | 12,128,962 |
| Ohio | 8,000,000 | 8,969,007 |
| Pennsylvania | 7,000,000 | 7,837,948 |
| Wyoming | 3,000,000 | 1,572,306 |
| Kansas | 2,000,000 | 1,592,796 |
| Indiana | 900,000 | 970,009 |
| New York | 800,000 | 874,128 |
| Kentucky | 500,000 | 484,368 |
| Colorado | 200,000 | 206,052 |
| Other States | 100,000 | — |
| Total | 242,000,000 | 222,113,218 |

In New York and Pennsylvania great efforts were made to increase production by new drilling and more especially by cleaning out old wells. No great success was obtained, and the usual decline resulted. A deep test boring at Derrick City, near Bradford, Pa., was carried to 5,673 ft. with the hope of finding oil in the Medina sands. This boring is being continued.

In West Virginia no new pools comparable with the Blue Creek discovery of the previous year were opened. The drilling in Roane, Ritchie, and many other counties was successful enough to check the expected decline due to the decreased yield of Blue Creek.

The possibilities of finding oil in Western Kentucky aroused general interest.

Eastern Ohio was actively drilled with fair results, and in the Ohio River region an interesting innovation in handling old wells gave promise of very beneficial conservation of old oilfields in the future. Compressed air was forced into the nearly exhausted oil-bearing sands through a well situated centrally in a group of old wells and the increase in yield was marked.

The decline in the Lima (Ohio and Indiana) field was no greater than usual ; in fact, the new development in Sullivan county, Ind., added an encouraging new supply.

Illinois continued the marked decline of 1912. Wildcatting gave unsatisfactory results.

The entire Mid-continent region showed an increase with a record total output. In Kansas prospecting returned to many localities which had been temporarily abandoned when the Glenn pool attracted all available capital to Oklahoma. During last year the high prices asked for favourable locations in Oklahoma reacted in favour of Kansas. The phenomenal bonuses obtained in auctioning leases on Osage Indian lands showed the high value of Oklahoma lands. The oil also increased in price to $1.03 a barrel and would have gone higher but for the excessive production, which put oil into storage and created uncertainty as to future prices. Besides satisfactory development of the new Cushing and Cleveland pools, interesting prospects for new pools have been found at Newkirk, Wann, and Healdton.

Through the efforts of the Louisiana Conservation Commission, the United States Bureau of Mines and the oil operators the gas well near Oil City, which had run wild since the opening of the Caddo region, was closed.

The Electra and other fields in Northern Texas continued to increase, and the decline in the Gulf region was slight. Much wildcatting was in progress at many points over the State. Chief interest centred in a new development at Moran, in Shackelford county.

Production increased in the Salt Creek field of Wyoming, and the erection of additional refineries was commenced. An important suit was begun by the Federal Government to recover oil lands entered upon since the first withdrawal order of former President Taft.

At the close of 1912 consumption in California had so nearly balanced the productive rate as to encourage the producers and at least to defeat concerted effort toward restriction of drilling. Many of the wells of 1913 were gushers of the phenomenal type, and aided greatly in increasing the supply. The efforts to increase consumption succeeded fairly well, so that, except during the month of greatest production, September, when about 9,000,000 barrels were produced, the consumption almost kept pace with the output, and the amount sent to storage was less than a million barrels.

The Fullerton field continued to yield large gushers with sufficient frequency to justify the attempts to reach the unusually great depth of the oil sands.

Farther north, the "West Side" fields of Kern county continued as strong factors in the increasing output of the State, and the Buena Vista Hills, Elk

Hills, and other new districts gained in interest. Even the comparatively old Kern River field, near Bakersfield, sustained interest by wildcatting to the northwest, where the Standard Oil Company's well went into oil, and aroused geologic and financial speculation over a large area. The product of the district declined.

Coalinga's year had many eventful features, including extensions of territory to the east and the discovery of additional deep sand yielding oils containing paraffin. The value of the field was indicated by the sale of the California Oilfields, Ltd., to the Shell Trading and Transportation Company, an ally of the Royal Dutch Syndicate, late in the year.

The Santa Maria field benefited by increased technologic development by which the oils were topped and dehydrated with markedly greater efficiency. These developments included the successful introduction of the Cottrel electric dehydrations process. The adoption of the Trumble and Dyer topping and dehydrating processes and the great advance in methods for obtaining gasoline from natural gas were among the striking achievements of the year, but while less spectacular, the economies effected by many minor improvements in the great refineries at Point Richmond, Oleum and El Segundo contributed perhaps equally to the general problem of efficient refining.

In transportation the new pipeline of the General Petroleum Company, over Tehachapi Pass, effected cheaper transportation to the south, and the natural gas line to Los Angeles was equally advantageous. Meanwhile several new tank oil carriers and oil-burning steamships were added to the Pacific Coast trade and aided in increasing consumption.

On account of the increased cost of fuel oil for battleships and the fact that foreign corporations are rapidly purchasing reserves of oil in the United States, the Secretary of the Navy has recommended to Congress the policy of producing crude oil from the naval reserves and obtaining fuel oil from it.

There has been unusual progress in many parts of the country during the year in petroleum refining, especially in the dehydration of heavy crude oils, in obtaining gasoline from natural gas and synthetically from heavy oils, and in obtaining many special products from crude oils.

◆

## SURAKHANY PETROLEUM PRODUCTION.

### Details for October.

The total production of petroleum on the Surakhany oilfields during October amounted to 2,968,962 poods of black oil, 68,131 poods of white oil, and 112,085 poods of gas. The production of the various firms was as under :—

| | Gas. Poods. | White Oil. Poods. | Black Oil. Poods. |
|---|---|---|---|
| Asadulaeff ... ... ... | — | — | — |
| Baku Petroleum Company... | 59,840 | 64,900 | 308,300 |
| Benkendorff Company ... | — | 3,231 | 470,809 |
| Caspian and Black Sea Society | 37,245 | — | 713,420 |
| Mirzoeff Bros. ... ... | 15,000 | — | 166,100 |
| Nobel Bros. .. ... ... | — | — | 751,033 |
| Lukke & Gaber ... ... | — | — | 91,800 |
| Rilski Trustees ... ... | — | — | 137,000 |
| Russian Nafta Society ... | — | — | 73,400 |
| Vanczoff ... ... ... | — | — | 195,500 |
| Mailoff ... ... ... | — | — | 61,500 |

## PATENTS.

*Specially contributed by Messrs. EDWARD EVANS & CO., Consulting Engineers, Chartered Patent Agents and Enrolled Patent Attorneys of the United States, of 27, Chancery Lane, London, W.C.*

*The undermentioned "Applications Published" are all in the stage in which opposition to the grant of patents upon them can be made.*

*Messrs. EDWARD EVANS & CO. would be pleased to forward a copy of any of the Specifications on request, and on remittance of a P.O. for 1s. to cover cost and postage. They would also be pleased to advise upon the novelty, subject matter, and value of any invention submitted to them by our subscribers.*

### Applications Published.

**Process of and apparatus for distilling petroleum and other hydrocarbon oil.**—Charles Worth Turner. No. 25,832 of 1912. This relates to a process of distilling and separating hydrocarbon oil into distillates of different gravities, which consists in forcing oil and water under pressure through heated coils, combining the resulting vapours, and subjecting them under pressure to a decomposing temperature, and then admitting the products into vessels of larger diameter.

**Vapour burners for heavy hydrocarbons.**—Achille Bugnon. No. 26,569 of 1912. This relates to a burner for heavy hydrocarbon oils wherein the heavy oil is supplied under pressure into a sinuous vaporiser, where it is gasified, and is then injected together with air into a chamber the top of which is provided with rows of burner heads situated below the level of the sinuous pipe, the second sinuous pipe and row of perforated pipes being arranged directly beneath the first-mentioned sinuous pipe for the purpose of gasifying and burning petrol for starting the burner, and wherein the oil vapour burner heads are arranged in the spaces between the pipes so that on starting the burner the sinuous tubes are heated directly by the petrol flames, whilst during the normal working of the burner they are indirectly heated by the main flames.

**Treatment of liquid hydrocarbon mixtures,**—Rudolf Hense. No. 6,643 of 1913. This relates to processes for the manufacture of hydrocarbon compounds and mixtures which have been treated with oxidising salts and nitro bodies as described in the specifications Nos. 14,671 and 22,561/07, the treatment of the liquid under distillation consisting of, firstly, in interrupting the distillation at a suitable temperature variable according to the constituents of the mixture or compound; secondly, in then allowing the liquid to cool and introducing ozone as free as possible from nitrogen into the still; thirdly, in drawing off the sediment thus formed, and, finally, of continuing the distillation.

**Safety plugs for vessels adapted to contain inflammable liquids.**—Egiste Verneuil, of 24, Rue des Ardennes, Paris, France. No. 22,641 of 1913. This relates to a safety or flame-stopping plug adapted to fit the opening of a receptacle or conduit for inflammable liquids, and consists in the combination of two tubes fitting into and secured to each other, each tube being provided with openings arranged in staggered relationship with those on the other tube, the inner tube being screw threaded on its outer face so as to form conduits or passages of very small cross section which established communication between the openings of the tubes, means being provided for securing the device to the receptacle or conduit to which it is fitted.

### Applications Filed.

**Process of desulphuring sulphur-bearing shale oils.**—William Augustus Hall. No. 26,756 of 1913.

**Burners for vaporised liquid fuel.**—Edward Morris Parish. No. 27,281 of 1913.

**Methods for obtaining large quantities of hydrocarbons and sulphate of ammonia by distillation of coal, shale, or other carbonaceous materials.**—Julius Moeller. No. 27,386 of 1913.

**Vaporising oil-burners.**—William Montgomery Britten. No. 866 of 1913.

**Process of and apparatus for refining oils.**—Raymond Auguste Dornes. No. 1,269 of 1913.

**Incandescent lamps for petroleum or other hydrocarbons.**—Soc. Anon. la Washington. No. 1,273 of 1913.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 11/6–12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1$–$1\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 90-95 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/9-6/3 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/9-7/9 |
| European Oilfields ... ... | 319.181 | 10/- | 5/9-6/3 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 30/9-31/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 33/3-33/9 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}$-$\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 20/6-21/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}$-$\frac{3}{8}$ |
| ,, ,, Ord... | 690,000 | fully pd. | 14/6-15/6 |
| Shell Transport and Trading | | | |
| Co., Ltd. ... ... Ord. | 4.047,610 | £1 | $5\frac{11}{32}$-$5\frac{13}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{3}{8}$-$10\frac{5}{8}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Latest Quotations. Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 697 | 700 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,700 | 18,800 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 990 |
| Russian Naphtha Society ... ... | 100 | 251 | 253 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

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| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 34/3 |
| ,, 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 83/6 |
| ,, Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| ,, 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd.. Non. Cum. Pref. ... | $8,500,000 | $10 | 42/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 34/3 |
| ,, Pref. (£1 paid) ... | 100,000 | £1 | 21/6 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/6 |
| Pumpherston Min. Oil Co., Ltd. | | | |
| Ord. (17/- paid) .. | 110,500 | 17/- | $5\frac{1}{8}$ |
| ,, 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 10/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 70/6 |
| ,, "B" Deb. ... | 160,000 | £100 | £153 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| ,, ,, ,, ,, Pref. ... | ,, | 181 |
| Royal Dutch Petroleum Co. ... ... ... | ,, | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | ,, | 234 |
| Perlak Petroleum Maatschappij ... ... | ,, | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | ,, | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | ,, | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | ,, | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | $1/4\frac{1}{2}$–$1/10\frac{1}{2}$ |
| Anglo-Persian Preference (£1)... ... ... ... | $1$–$1\frac{1}{8}$ |
| Anglo-Terek (£1)... ... ... ... ... ... | $0$–$\frac{1}{8}$ |
| Baku (10/- Shares) ... ... ... ... ... | 6/3–6/9 |
| Batavia (£1) ... ... ... ... ... ... | 19/6–20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{1}{4}$–$\frac{3}{8}$ |
| ,, Preference (£1) ... ... ... ... | $\frac{5}{16}$–$\frac{7}{16}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{9}{16}$–$\frac{5}{8}$ |
| British Burmah Petroleum (£1) ... ... ... | 5/3–5/9 |
| British Maikop (2/-) ... ... ... ... ... | $0/10\frac{1}{2}$–$1/1\frac{1}{2}$ |
| California (£1) ... ... ... ... ... ... | $5\frac{3}{4}$–$6\frac{1}{4}$ |
| California Petroleum Preference ($100) ... ... | 62-67 |
| Cheleken (£1) ... ... ... ... ... ... | $1\frac{5}{8}$–$\frac{11}{16}$ |
| Chijoles (£1) ... ... ... ... ... ... | $1$–$\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{13}{32}$-$\frac{15}{32}$ |
| Copan Oilfields ... ... ... ... ... ... | 5/0–5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... ... | 2/0–2/6 |
| Eagle Transport Preference (£5) ... ... ... | $5\frac{1}{8}$–$5\frac{1}{4}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | $2\frac{1}{4}$–$2\frac{3}{4}$ |
| Emba Caspian (£1) ... ... ... ... ... | $\frac{9}{16}$–$\frac{11}{16}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 4/9–5/3 |
| Hungarian National (£1) ... ... ... ... | $\frac{1}{2}$–$\frac{3}{4}$ |
| International Russian (5/-) ... ... ... ... | $1/4\frac{1}{2}$–$1/7\frac{1}{2}$ |
| Kansas-Oklahoma (£1) ... ... ... ... ... | $\frac{21}{32}$–$\frac{25}{32}$ |
| Kazan Oilfields (£1) ... ... ... ... ... | $1$–$1\frac{1}{8}$ |
| Kern River (10/-)... ... ... ... ... ... | $7/1\frac{1}{2}$–$7/7\frac{1}{2}$ |
| Lagunitos (£1) ... ... ... ... ... ... | 4/0–5/0 |
| London Oil Syndicate (£1) ... ... ... ... | $1$–$\frac{1}{4}$ |
| Maikop Premier (£1) ... .. ... ... ... | $10/1\frac{1}{2}$–$10/7\frac{1}{2}$ |

| Company. | Friday's Prices. |
|---|---|
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/6–4/0 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0–2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | $2\frac{1}{32}$–$2\frac{3}{32}$ |
| Mexican Eagle Preferred ($10)... ... ... ... | $2\frac{3}{32}$–$2\frac{5}{32}$ |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 85–95 |
| New Caucasian (10/-) ... ... ... ... ... | 1/9–2/9 |
| New Oil Properties (£1)... ... ... .. ... | $\frac{7}{8}$–1 |
| Oil Development Trust (2/-) .. ... ... ... | 1/0–1/6 |
| Oil Shale Development (5/-) ... ... ... ... | 4/0–4/3 |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{8}$–$\frac{1}{4}$ |
| ,, ,, Preference ... ... ... ... | $\frac{1}{2}$–$\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... ... ... ... | $\frac{7}{8}$–1 |
| Pacific Petroleum (£1) .. .. ... ... ... | 23/6–24/6 |
| Premier Oil and Pipe Line (£1) ... ... ... | 5/3–5/9 |
| Ratoczyn (£1) ... ... ... ... ... ... | $2\frac{7}{16}$–$\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{11}{16}$–$\frac{3}{4}$ |
| Russian General Oil Corporation (£1) ... ... | 38/0–39/0 |
| Santa Maria of California Ordinary (£1) ... ... | 17/0–18/0 |
| ,, ,, Preferred (£1) ... ... | $1\frac{7}{32}$–$1\frac{9}{32}$ |
| South Caucasian (£1) ... .. ... ... ... | $1\frac{3}{8}$–$\frac{7}{8}$ |
| Suez (£1) ... ... ... ... ... ... ... | 4/0–5/0 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | $16/1\frac{1}{2}$–$16/4\frac{1}{2}$ |
| Tampico-Panuco (5/-) .. ... ... ... ... | 8/3–8/9 |
| Traian (Roumanian) (£1) ... ... .. ... | $\frac{13}{16}$–$\frac{15}{16}$ |
| Trinidad (£1) ... ... ... ... .. ... | $\frac{7}{16}$–$\frac{9}{16}$ |
| Ural Caspian (£1) ... ... ... ... ... | $2\frac{15}{16}$–$\frac{17}{32}$ |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | $1\frac{9}{16}$–$\frac{11}{16}$ pm |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}$–$\frac{1}{2}$ |

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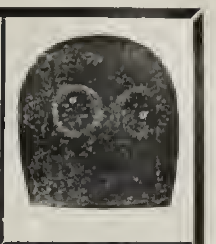

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, January 31st, 1914.

## THE AMERICAN PETROLEUM INDUSTRY DURING 1913.

We are only repeating fact when we say that during 1913 the American petroleum industry passed through a period which was remarkable in two aspects. The output of crude oil not only reached a new record, but the price of the crude itself remained during the twelve months at figures never previously quoted since the commercial era of petroleum commenced.

The total output of crude oil in the United States last year may conservatively be given as over 240,000,000 barrels, which is about 20,000,000 barrels in excess of the figures for 1912. Thus America can still claim to be by far the largest producer of crude oil in the world. But even now the oil-producing regions of the States are not yielding anything like the amount of crude oil possible, and the pages of the Review have often shown to what a great extent the yield is being curtailed in order that, to some degree at all events, production may go hand in hand with the demand. It has frequently been placed on record that if occasion necessitated, the United States could with comparative ease increase the output of crude oil by 50 per cent., and when one bears in mind the number of prolific wells in California and other fields which are partially shut down, combined with the general curtailment of operations in several of the fields owing to the great stocks of crude oil on hand, the fact that the record of oil production does not in any way represent the true capabilities of the American fields impresses itself upon the mind.

In view of the remarks just made, it is strange that we should still hear cries of a possible shortage of oil supplies in the near future ; one can only put such arguments down to either a general ignorance of prevailing conditions, or a wilful desire on the part of some to misinterpret facts.

The remarkable position in which the petroleum industry of the United States finds itself is to a very great measure due to the great advance which during late years has been made in the Californian fields, whose total production during 1913 was approximately 98,000,000 barrels, or about 12,000,000 barrels in excess of the figures for the preceding twelve months. There was a time when the one obstacle to development in California was the lack of markets, but such a state of things has now been lived down, for in spite of the substantial increase in crude oil production last year the stocks above ground were not materially strengthened. Both for refined products and for heavy-grade crude oil California is now cultivating an export trade of no mean order. The Far Eastern markets recognise that in California enormous quantities of crude oil stocks can be drawn upon for refining purposes for Oriental needs, while the steady expansion of the liquid fuel trade all along the Pacific coast is opening up a new era of prosperity for the State. An added impetus will be given to California during the present year, when the Panama Canal will form a connecting link between Atlantic ports which are now willing to enter into business relations with the producing interests of the Californian State.

The Mid-continent fields were last year responsible for a crude oil output of over 64,000,000 barrels, or about 12,000,000 barrels in excess of the figure for the preceding twelve months. But the Oklahoma refiners are still in need of additional markets, and the new Export Oil Corporation, to which we referred last week, and upon which subject we give additional details in our present issue, is confidently expected to accomplish good work in this respect, more particularly as it will stand as an absolutely independent selling organisation. To-day the output of high-grade crude in the Oklahoma fields is far below what it might be, but once the new organisation gets into thorough working order, a decided fillip is bound to be given to the greater production of Oklahoma crude oil.

In regard to Texas and Louisiana, the past year has been one of steady progress, and the combined output of about 27,000,000 barrels, showing as it does an increase of over 7,000,000 barrels upon the figures for 1912, conclusively proves that the Gulf Coastal regions are still capable of yielding huge quantities of crude oil, even in districts that have known a declining career for some time.

Reviewing the situation in the petroleum industry of the United States as a whole, it can be said to be in a particularly healthy condition, with the trend of events pointing in the direction of a continuation of the remunerative prices which have been ruling for the past year.

◆

## EAGLE OIL TRANSPORT COMPANY, LTD.

### A Gratifying Report.

The directors' report for the year 1913, which will be submitted to the annual meeting next Wednesday, at Winchester House, E.C., states that the balance of profit is £80,920, and £1,417 was brought forward. The directors transfer to depreciation reserve £25,644, pay dividend on preference for the year at the rate of 6 per cent., £47,500, and carry forward £9,193. During the year eight vessels were delivered by the shipbuilders, making eleven vessels in commission. It is anticipated two new vessels will be in commission in February and a further six before the end of June. Gross earnings for the year were obtained from less than one-quarter of total tonnage which will be available.

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## THE PREMIER OIL AND PIPELINE COMPANY, LTD.

### The Directors' Resolutions Carried.

We understand that the poll of shareholders upon the amendment and three resolutions submitted at the ordinary meeting on January 9th took place last Thursday week. The votes have now been scrutinised, and the result is that the amendment is defeated. The resolutions submitted by the directors are therefore carried by a large majority in each instance.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JANUARY 26th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. | Since Jan. 19. | From Jan. 1. |
| Belgium .. | — | — | 14,180 | 47,890 | — | — | — | — | 13,740 | 21,920 | — | — | — | — | 27,920 | 69,810 |
| Canada .. | — | — | 400 | 400 | — | 2,600 | — | — | — | — | — | — | — | — | 400 | 3,000 |
| Dutch Indies | — | — | — | — | — | — | — | — | 3,164,000 | 5,978,000 | — | — | — | — | 3,164,000 | 5,978,000 |
| Germany .. | — | — | 34,410 | 92.410 | — | — | — | — | — | — | — | — | — | — | 34,410 | 92.410 |
| Holland .. | — | — | — | 2,410 | — | — | — | 55,000 | 10,000 | 819,000 | — | — | — | 590 | 10,000 | 877,000 |
| Mexico .. | — | 882,000 | — | — | — | — | — | — | — | — | 472,000 | 733,800 | — | — | 472,000 | 1,615,800 |
| Roumania .. | 212,940 | 212,940 | — | — | — | — | — | — | — | 771.340 | — | 1,207,910 | — | — | 212,940 | 2,192,190 |
| Russia . | — | — | — | 800 | — | — | — | — | — | 1,907,310 | — | — | — | — | — | 1,908,110 |
| U.S.A. .. | 4,820,000 | 11,563,450 | 691,890 | 3,118,720 | — | 5,280 | 1,950,920 | 9,361,580 | — | — | 617,300 | 681,730 | 7,860 | 40,320 | 8,087,970 | 24,771,080 |
| Other Countries | — | — | 3,080 | 8,240 | — | — | — | — | — | — | — | — | — | — | 3,080 | 8.240 |
| | 5,032,940 | 12,658.390 | 743,960 | 3,270,870 | — | 7,880 | 1,950,920 | 9,416,580 | 3,187,740 | 9,497,570 | 1,089,300 | 2,623,440 | 7,860 | 40,910 | 12,012,720 | 37,515,640 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**A Significant Rumour.**—It is now reported freely in California that the Shell-Royal Dutch interests are negotiating for the purchase of a controlling interest in the Associated Oil Company from the Southern Pacific Railroad Company.

**A Residential Oilfield.**—A new mineral lease has been filed in Los Angeles upon 160 acres of land close to one of the residential districts in Los Angeles. It is expected that objections will be made against working the lease, as has been done in other cases.

**No Hope for Oil.**—After a careful geological survey of the Mohave Desert, near Barstow, California, the officials of the American Government have issued a report in which they state that there is no hope of finding oil in this part of the Californian State.

**Calgary Developments.**—Development work is at its height in the Okotoks-Calgary fields, where at least twenty new wells are now being drilled. Several new companies are being formed, so that within a few months a considerably increased amount of new work will be under way.

**Oil Fuel to Develop Chilian Industries.**—Writing from Valparaiso, the American Consul states that the consumption of liquid fuel in the nitrate works of Chili has considerably increased during the past few years, for by its use the fuel expenses have been reduced by as much as 40 per cent.

**The Water Trouble.**—Thanks to the great care which has been exercised in shutting off the water in the various sections of Coalinga and other Californian fields, it is expected that this serious trouble is now practically at an end. Many of the wells recently brought in have shown no water at all.

**Toronto Natural Gas.**—While searching for pure water the drillers of a well in the Dominion Bank building, which is now being erected in the city, came across a tremendous pressure of natural gas. Wet cement was poured down the shaft until the pressure of the gas subsided, but traces of the gas still continue to come through the 300 ft. of concrete which has been formed in the well.

## RUSSIAN.

**Amalgamation of the Aramazd Company and the Apsheron Company.**—These two companies amalgamated on December 30th last, when a special meeting for the election of a new administration was held.

**Motovilikha Petroleum Company.**—This company has concluded its operating year with a net profit of 147,143 roubles, out of which 17,198 roubles were transferred for covering the losses incurred during the previous years, and 120,369 roubles for the amortisation of the property.

**Liquid Fuel in the Russian Centres.**—There are at present in store in various Russian centres 287,000,000 poods of crude oil and residuals, disposable for the current operating year. This quantity will be quite sufficient for covering all the needs of the population during the present winter.

**Rumours of Regulating Prices of Kerosene.**—There are rumours on the Paris Exchange of the Standard Oil and Royal Dutch Companies having come to an agreement with some Russian kerosene companies in order to regulate prices for oil. These rumours have no foundation whatever in fact.

**Exploitation of Gas.**—We have already referred to the new ministerial order allowing the carrying out of petroleum gas outside the exploitation areas. This regulation limits the use of gas for the purposes of petroleum exploitations on the adjoining areas, but not for other purposes.

**Importation of Petroleum Free of Duty.**—By a ministerial order issued on December 24th last the importation of petroleum free of duty into Russia for all kinds of uses and along all frontiers of the Russian Empire is allowed until the promulgation of a special law concerning this matter.

**Petroleum in the Kazan Province.**—The high prices of petroleum now dominating the market are causing great anxiety to the Zemstvo of the Kazan Province, in which the yearly consumption of kerosene alone amounts to over 1,500,000 poods, for which the Kazan population now have to pay 2,000,000 roubles a year more than before the rise in the prices began. The Zemstvo recommends the introduction into Russia of a monopoly similar to the one in Germany.

**Spouter at Grosny.**—For nearly the past two months a spouter (the second one) has been acting on the new Grosny areas of the North Caucasian Company on one of Belik's plots. The spouter broke out from a depth of 1,601 ft. The oil is a very light one, and the water has been shut off at a depth of 1,771 ft. At the beginning the spouter was yielding over 30,000 poods a day, and at present it yields 12,000 to 15,000 poods a day. Prices for neighbouring plots have gone up to 130,000 roubles.

**Grosny Petroleum Production.**—The production of the old areas at Grosny during October amounted to the high level of 7,430,505 poods, including 515,280 poods of spouted oil, as against 5,332,980 poods of baled oil and 126,330 poods of spouted oil produced during September. The number of plots in exploitation amounted to 72, and those in work to 107. On November 1st there were altogether 494 wells, of which 258 were in exploitation, 97 in boring and deepening, 90 inactive, and 49 in various stages of repair.

## ROUMANIAN.

**General Situation.**—The general situation has not changed, and the production is maintained at the same level. Well No. 1 Colombia continues its eruptions, and yields at present 70 tons a day.

**Mislishoara.**—Well No. 37 of the Trajan Roumanian Oil Company has been deepened and has struck oil with a yield of 10 tons a day. Boring has begun in the wells 84 Colombia and 317 Concordia.

**Tzonteshti.**—Well No. 3 of the Chiciura Oilfields made a powerful eruption on January 9th, which lasted an hour and produced 25 tons. Well No. 235 Steaua-Romana produces 5 tons a day, and well No. 309 Orion is in repair.

**Gropi.**—Well No. 302 of the Orion Company has ceased its eruptions, and the production now amounts to 25 tons a day. Well No. 79 Colombia continues to produce 25 tons a day, and in the well No. 80 Colombia the waters are now isolated, and a strike of oil is expected at about 40 metres below.

**"Credit Petrolifer."**—Mr. Paul Speir retired from the administration of this company on December 31st, and has established a business of his own, consisting of a technical mining bureau, in which he will deal with the technical and financial questions concerning the Roumanian industry.

**Production of the Astra-Romana during the Year.**—The total production of the Astra-Romana during the last year amounted to 444,025 tons of crude oil, which were obtained as follows: 332,589 tons at Moreni, 66,845 tons at Bana, 22,380 tons at Campina, 20,243 tons at Filipeshti, 1,474 tons at Baicoi, and 292 tons at Glodeni.

**Chiciura.**—Well No. 28 Margulies, which produced by eruption 80–100 tons a day, was destroyed by fire on January 4th. It is now in reconstruction and will very soon again enter into production. Well No. 231 Steaua-Romana produces 20 tons a day. Other wells of the same company in this locality now have their water shut off, and a new well is in boring.

**Cobalcesco.**—Well No. 1 at Copaceni has now reached a productive stratum at a depth of 453 metres, from which at present 223 tons a day are extracted by baling. The proper extraction is hindered as yet by the very great pressure of gas and the pressure of the ground, which necessitates frequent repairs. The well will be deepened and another well close to it will be bored.

**Bordeni-Doftanetz.**—Well No. 1 Jean Goldfeld has struck oil at a depth of 355 metres. Well No. 57 Aquila Franco-Romana maintains its production of 20 tons a day. In the well No. 312 Concordia, which some time ago gave very violent eruptions and yielded a large quantity of crude oil, cementations are now proceeding in order to shut off the waters, and there is great hope that the well will soon re-enter into production, as the oil has already mounted into the column and the gas is very powerful.

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# The Oil and Gas Prospects of the North-West Provinces of Canada.

### By Mr. WYATT MALCOLM.

*(Continued from page 108.)*

IN the Athabaska River district Government drilling has proved the presence of an abundance of gas in the Dakota sandstones, and the tar sands furnish evidence that at one time at least a portion of the same formation was saturated with petroleum.

The tar sands outcrop along the valley of the Athabaska and its tributaries for a distance of 90 miles below Boiler Rapid. They are of Dakota age, rest unconformably on the Devonian limestone, and are overlain by the Clearwater shale as far down as the Forks. They must have consisted originally of almost unconsolidated sands and soft sandstones, ranging in texture from a fine silt to a coarse grit, with a few lenticular beds of limestone, and lignite seams 2 or 3 ft. thick. These sands are impregnated by a tarry or bituminous substance. The bitumen is unequally distributed, and the rock varies in colour from grey to a dark brown and jet black, according to the quantity of bitumen contained. In a few places the quantity is only sufficient to stain the grains, but there is generally enough to render the mass more or less plastic. At a temperature of 60° Fahr. the mass is sufficiently plastic to bend considerably before breaking. When cut with a knife the shavings or chips curl up like those of hard soap. When worked in the hand it becomes softened, and may be moulded like putty, and is quite as brittle. In a fire of wood it soon ignites, burning for some time with a smoky flame, and then falling to powder. During warm weather tar oozes from the rock and flows in places down the face of the banks of the Athabaska and over the limestone at their base. At ordinary temperatures this sandy tar has the consistency of hard cheese, and yields only slightly to the pressure of the foot, but on warm days it causes some inconvenience to those walking over it.

It is believed that the bituminous substance saturating the sands is really an inspissated petroleum, and that it is derived from a liquid petroleum by the evaporation of the more volatile hydrocarbons and by such chemical action as oxidation and polymerisation. It is thought that this petroleum welled upward from the Devonian limestones into the porous Dakota sands, where it was retained by the overlying shales. Erosion of these shales has exposed the petroliferous sands, and given opportunity for evaporation and chemical action, resulting in the tarry, coherent cement.

As already stated, it is believed that the Devonian limestone forms the source of the petroleum. "The walls of the transverse joints and other spaces in the limestone were frequently observed to be blackened with petroleum, and at a place nearly opposite to the mouth of the Little Red river some irregular cavities contained inspissated pitch. These limestones were not found to yield petroleum on fresh fracture, although they had occasionally a bituminous smell, but traces of the oil were afterwards found in a bed of limestone on the Clearwater river, which would be much lower down in the formation.

An analysis by Dr. Hoffmann of a specimen of the tar sand collected by Dr. Bell gave the following result :—

| | |
|---|---|
| Bitumen ... ... ... | 12·42 per cent. |
| Water (mechanically mixed) | 5·85 ,, |
| Siliceous sands... ... ... | 81·73 ,, |

The Barber Asphalt Paving Company has kindly furnished the following results of analyses of samples sent from the Athabaska region in 1905 :—

| | No. 1. | No. 2. |
|---|---|---|
| Material ... ... | Bituminous sand ... | Seepage. |
| Bitumen by $CS_2$ ... | 19·4 per cent. ... | 56·2 per cent. |
| Vegetable refuse ... | 0·0 ,, ... | 3·8 ,, |
| Quart. sand ... ... | 80·6 ,, ... | 40·0 ,, |
| Character of bitumen... | Heavy maltha ... | Very heavy maltha. |

As this part of Alberta becomes settled and railway facilities are provided, these tar sands may grow into commercial importance. The supply is almost inexhaustible. The beds vary in thickness from 140 to 220 ft., and although they have not been fully explored, it has been estimated that they have a distribution of at least 1,000 square miles. The discovery, however, of the tar sands in the borehole at Pelican river since this estimate was made shows a much wider distribution than was at first suspected.

Since the bitumen has probably been derived from petroleum by evaporation and chemical changes, it was thought that at some distance from their outcrop the sands would be saturated with the liquid petroleum. To test this conjecture boring operations were undertaken by the Dominion Government during the nineties. As the strata dip to the south at a low angle, the boring was undertaken to the south of the outcrop of the tar sands.

The first operations were at Athabaska Landing. Work was begun there in 1894, and during that year a depth of 1,011 ft. was attained ; in 1895 it was carried with difficulty to a depth of 1,731 ft., and in 1896 a further depth of 39 ft. was attained, when it was found impossible to go deeper. Great difficulty was encountered on account of the caving of the shale. At a depth of 1,770 ft. it was believed that the drill was in the Clearwater shales, but since the Dakota sandstone was not reached, the boring does not prove the existence or non-existence of petroleum at that horizon. Gas in small quantities was encountered at several horizons.

In 1897 drilling was started at Victoria, on the Saskatchewan, and near the mouth of the Pelican river, on the Athabaska. At Victoria the hole was drilled 705 ft. in 1897, was extended to 1,650 ft. in 1898, and to 1,840 ft. in 1899. Much trouble was encountered by the caving of shales, and at a depth of 1,840 ft. the casing became so tightly wedged that it was impossible to move it either up or down, and operations ceased. The tar sand horizon has been estimated to lie at a depth of about 2,100 ft. at this point, and therefore within about 250 ft. of the bottom of the hole.

In the case of the work started near the mouth of Pelican river in 1897 the borehole was carried to a depth of 821 ft. 6 in. that year, while in 1898 it was continued to a depth of 837 ft. After passing through 86 ft. of sand and gravel, 99 ft. of Pelican shales, 280 ft. of Grand Rapids sandstones, and 285 ft. of Clearwater shales, the tar sands were met at a depth of 750 ft. and penetrated 87 ft. Small quantities of gas and heavy petroleum were met at different horizons above the tar sands. The tar sands themselves were found to consist of soft sandstone saturated with heavy petroleum or maltha. Strong flows of gas were struck at 750 and 773 ft., and at 820 ft. a tremendous flow was struck, the roaring of which could be heard at a distance of three miles or more. The flow was so strong that no progress could be made in drilling, and work was abandoned until 1898, when it was thought the force of the gas would be decreased sufficiently to permit of further operations.

But though there was a seeming decrease of pressure upon operations being resumed in 1898, "the seeming decrease was found to be in a great measure due to the closing up of the outlet at the bottom of the casing by an asphalt-like mixture, composed of maltha or petroleum tar and sand. In fact, when boring operations were resumed on June 17th, the difficulty was found to be intensified by the accumulations of this asphalt-like maltha in the bottom of the bore.

The rapid expansion of the gas produced a very low temperature, and this chilled and solidified the tar, or maltha, until it became as adhesive as wax. As the tools cut it loose the gas would carry it up through the bore, until from bottom to top it was almost one mass of sand and tar. The only way it could be extracted from the sand-pump was by heating the latter over a fire ; even then very little could be got out at one time, it being so thick that it was almost impossible to force it up into the pump. I used different sorts of tools to cut it off the walls and clean it out, but the longer we worked at the bore the greater the quantity of tar accumulating on the sides of the casing and tools. By using smaller casing the hole was carried to a depth of 837 ft., when another flow of gas was met, nearly equal in volume to that met at 820 ft. and the work was stopped.

The finding of the heavy bitumen in the Dakota sandstones, at a point so far from their natural outcrop, was acknowledged to be a disappointment, as it was hoped that petroleum of a commercial quality would be found. The failure to find a liquid petroleum at Pelican river, however, does not disprove its existence at other points. Much has, no doubt, escaped, but the hardening of the tarry substance at the points of issue may have served in place as a seal to prevent the escape of all the liquid. Its escape may also have been prevented in some places by a decrease in the porosity of the sandstone, while in other places it is very probably that anticlines occur into which petroleum may have risen and been retained.

Some boring operations have been conducted at Fort McMurray and at other points on the Athabaska, but logs of these have not been obtained.

There are indications of a wide distribution of oil in Northern Alberta. On Peace river and Lesser Slave lake bitumen has been found at a number of places lining cracks in nodules, and at Tar island, in Peace river, small quantities of tar are brought to the surface by a spring. On the north-west quarter of section 30, township 56, range 25, west of the 4th meridian, some small veins of hardened pitch and layers of sand saturated with pitch have also been found in the drift deposits. Besides these, natural gas springs have been found at different points on the Athabaska and Peace rivers. The northern part of Alberta offers a promising field for the testing of oil and gas possibilities. The southward dip of the rocks must be remembered, and the consequent necessity of going to greater and greater depths with increased distance from the northern outcrop of the tar sands.

According to McConnell the "Devonian rocks throughout the Mackenzie valley are nearly everywhere more or less petroliferous, and over large areas afford promising indications of the presence of oil in workable quantities." Petroleum springs have been observed in several places, as on Great Slave lake and near Fort Good Hope. In the bay immediately east of the Big Island fishery in Great Slave lake a spring rises from below the surface of the water. About 200 yards from the shore of another bay, at the west end of the same lake, three springs are found at the base of a low cliff of cavernous dolomite. This dolomite is everywhere permeated with bituminous matter which oozes up through cracks and forms small pools. Petroleum springs are also reported halfway between the bay and Fort Rae.

On the right bank of Peel river ten miles below the lower canyon a three-foot vertical fissure cutting across sandstone and shales is filled with a light, soft, carbonaceous substance, which burns readily with a red flame, leaving very little ash. It has its origin, probably, in the bitumen of the rocks that it cuts.

In a great many places throughout the Mackenzie valley the rocks are highly charged with petroleum. On Slave river, thirty miles below Chipewyan, the limestone beds contain inspissated petroleum in fissures ; bituminous shales and limestones are seen at several points around the west arm of Great Slave lake ; the rocks at the "Rock by the River Side," at Bear Rock, and at the Ramparts on Mackenzie river, are highly bituminous. Near old Fort Good Hope the river is bordered for several miles with shales completely saturated with oil ; these shales have been reddened in many places by the burning of the oil. About twenty-three miles below Grand View are shales that will burn when thrown on the fire. The slates and associated limestones occurring in the upper and lower canyons of Peel river are more or less petroliferous, and inspissated petroleum oozes from these in several places.

The above indications point to the possibility of the occurrence of numerous oil pools in the Mackenzie valley. Although the petroliferous rocks are exposed, it is by no means a foregone conclusion that all or even the greater portion of the hydrocarbons have escaped. The shales that form the middle member of the Devonian series may serve in many places as an impermeable covering to underlying petroliferous limestones, and conditions may also be such that all the petroleum from the upper limestone beds has not evaporated.

(*To be continued.*)

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**Roburg.**—Under this name a petroleum company has been formed for the purpose of exploitation of boring works in Baku and other areas, with a capital of 1,500,000 roubles.

# Developments during 1913 in South and Central America.

### By Dr. DAVID T. DAY.

In his preliminary report upon the developments in South and Central America during 1913 Dr. David T. Day says :—

The prospecting of most interest to the United States was that in the West Indies, Central America, and South America, on account of the approaching completion of the Panama Canal. In Venezuela American capitalists were actively prospecting in many regions, chiefly along the northern border. More than twenty field parties were engaged in exploration with a view to the selection of the most promising oilfields that might be developed, working under a provisional concession from the Venezuelan Government. These capitalists and others were also actively and successfully developing oil concessions on the adjacent island of Trinidad.

In Colombia, English, American and Canadian oil interests were concerned with concessions for the development of large areas where, though no large oil wells have been developed, the seepages of oil and asphalt are so significant as to lead to the hope of a large addition to the supply of fuel oil. The Cowdray interests withdrew from Colombia in the later part of the year.

There was delay in developing the oilfields of Argentina, owing apparently to the desire of the Government to retain the oil as a national monopoly.

In Chili a Governmental commission examined the oil and gas indications in the Magellan region and made a favourable report.

In Ecuador the Cowdray and other interests carried on a vigorous campaign for the acquirement and development of areas showing oil indications in the interior, as well as in the region of the old wells near the coast.

Interest was shown in the possibility of finding oil in Panama, Cost Rica, Nicaragua and Honduras, but so recently that there has not yet been time for a significant result.

In the islands of the West Indies prospecting for petroleum was active in Hayti, where a small oil well was drilled near Azua. In Cuba drilling for oil was resumed near Havana, Cardenas and Motembo. Explorations for oil were also active in Barbados.

## Work in Mexico.

In Mexico development work was remarkably active considering the unsettled condition of the country. It resulted in the development of several large wells in the neighbourhood of the great gusher at Potrero del Llano. Another large gusher was obtained at Los Naranjos, on the shore of Tamiahua lagoon, which indicated a considerable addition to the total oil supply. The importance of these additions cannot well be overestimated, for in spite of the universal judgment that the Mexican fields are potentially very great, the fact remains, that so far as present supply is concerned, Mexico has been limited to two, or at best three, large wells and not a very large number of smaller wells of most uncertain character. Of the large wells, the American (Doheny) interests owned two and the Pearson interests one. Even with the phenomenal energy of the exploration work it was questionable whether new wells would be found promptly enough, under the peculiar Mexican conditions, to maintain present shipments, let alone supply a combined fleet of about forty large tank steamers. The supply is now ample. As an evidence of the peculiar character of petroleum commerce it is probable that with this additional supply the price per barrel will increase, because the greater confidence in the supply will stimulate the adoption of Mexican oil for refining and for fuel.

The eight-inch pipeline of the Mexican Eagle Oil Company was completed from Potrero del Llano to Tampico. The refinery of this company between La Barra and Tampico, north of Panuco river, is nearing completion. Among many other interesting developments in Mexico was the continued interest in the Topila oilfield, near Tampico, where, in spite of the many wells going to salt water, the unusually large gushers occasionally obtained have stimulated continual drilling operations.

A feature of importance for the United States was the development of a large fleet of tank steamers for coastwise and trans-Atlantic trade. Imports of Mexican oil were extended to several refining centres of the United States.

## Canadian Developments.

The general interest in the development of new oilfields which characterised the year 1913 extended to Alberta and Saskatchewan, in Canada. Although explorations in Saskatchewan gave either natural gas or else entirely negative results, a well twenty-seven miles south-west of Calgary, in Alberta, struck oil of very light gravity, causing much excitement, and a large territory in that region was taken up by prospectors for oil, probably much more than will be drilled within the next year. The oil excitement extended to the region north of Edmonton, in Alberta, where on Athabasca river and its tributaries large bodies of so-called "tar sands" have been known for many years. These "tar sands" are in places 60 ft. thick where exposed on the river banks, and have been traced for considerable distances from the river. Seepages of oil are reported for as much as 400 miles to the north, and many thousands of acres have lately been taken up from the Canadian Government for oil development at some time in the future.

Work has continued in the developing of the natural gas, petroleum and oil-bearing shales of New Brunswick.

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# Remarks on the Origin of Petroleum.

By Mr. E. H. PASCOE, M.A.

*An interesting chapter from the Government Bulletin "The Oilfields of Burma."*

(*Concluded from page* 110.)

Coal or lignite and petroleum are also closely associated in the Harnai Valley and other parts of Baluchistan; in Khatan, according to Townsend, they are accompanied by carbonised wood and enormous quantities of fragile carbonised nummulites. At Kelung and Skiddow, in the north-east of Formosa Island, in Labuan, Sakhalin, and Japan, we have the same association of coal and oil.

The close and widespread association between these two out of the three great inflammable natural substances of the world, and the direct derivation of one of them, coal (at least in the form of lignite) from the third, i.e., wood, cannot be regarded as accidental, and we are led to conclude that, in places where such an association can be recognised, they were probably derived from not dissimilar sources, under different but comparable local conditions. Where conditions were eminently favourable for the formation of coal, they apparently were not so for petroleum, since beds bearing thick seams of coal are apt to contain little or no petroleum; on the other hand, where conditions did not permit of more than thin layers and local patches of lignite or coal being formed, larger quantities of oil are liable to be found—one is tempted to say "instead of coal."

It is scarcely necessary to refer to the fact that coal itself on distillation produces oil and bituminous matter. One ton of ordinary coal will in this way yield up to 50 gallons or occasionally 75 gallons of oil. Von Reichenbach obtained an oil very similar to turpentine and the earth-oil of Upper Italy by distilling stone-coal with water. The arguments in favour of coal being the actual source of petroleum appear to me, however, very inconclusive. No distillation residuum has ever been found in or below petroleum strata, and supposing coal to have sunk or been thrust to such a depth as to be decomposed by the heat of some subterranean igneous intrusion, we should, in the first place, look to find evidence of the migration upwards of the oil from below, which I shall endeavour to show later we do not find, and in the second place, we should expect to find volcanic phenomena far more intimately associated with the oil occurrences than they are. The formation of oil by the distillation of coal is only mentioned to show that there is a close chemical, as well as geological, relationship between the two. As I have attempted to show, oil is very often found below or beside coal, and my suggestion is that in a great number of localities one is present at the expense of the other, and that both have had a similar or identical source, the difference in the products being due to local difference of conditions under which they were formed.

In conclusion of this question I cannot do better than quote two paragraphs from one of Professor Mrazec's latest papers: "La bituminisation et la carbonisation sont des phénomènes très rapprochés et il n'existe pas de charbons dépourvus de substances bitumineuses; celles-ci, dans certains cas, atteignent une très grande proportion dans la composition du charbon." "Nous constatons donc que l'énergie de la lumière et de la chaleur, qui donne la vie à la substance organique, est fixée par le processus de bituminisation et d'incarbonisation dans ces deux groupes de minéraux, qui jouent le rôle le plus important dans l'économie mondiale comme générateurs de force et de lumière."

Allusion may be made here to the two substances, fossil resin and iron pyrites, both of which characterise strata containing either coal or oil in many parts of the world. Sulphur and phosphorus are also impurities common to both. Another feature in common is the rapidity with which oilsands or seams of coal tend to split up into co-ordinate beds, or *vice versâ*, when traced horizontally.

The Liverpool Storage Company, Ltd.

Exceptional Facilities for the Storage of all kinds of . . . PETROLEUM PRODUCTS

IN BULK AND BARRELS.

Ocean Depots for Petroleum Spirit, Liquid Fuel, Illuminating Oils, Lubricating Oils and Turpentine. Also for ROSIN, TAR, TALLOW, etc., etc.

WAREHOUSE RECEIPTS AND WARRANTS ACCEPTED BY ALL BANKS.

The accommodation at all the Company's Depôts is upon the most up-to-date principles, while special facilities are provided for the forwarding of goods to all parts of the kingdom by rail, canal or steamer. *Correspondence invited.*

The General Manager, Peters Buildings, 13, Rumford Street, LIVERPOOL.

Telegraphic Addresses: "CASEMATES, LIVERPOOL."
"WHARFINGER, MANCHESTER."

Telephones: 1808 CENTRAL, LIVERPOOL.
3831 MANCHESTER.

## NEW ENGLISH COMPANIES.

### POPIELE OIL COMPANY, LIMITED.

Registered on January 24th, by Herbert Smith, Goss, King & Gregory, 62, London Wall, E.C. Capital £50,000, in £1 shares. Objects: To acquire the claims, rights, concessions, grants, licences and options in respect of interest in petroleum and oil-bearing lands, oilfields, wells and shale fields, etc.; and to carry on the business of owners, lessees and managers of same, etc. Signatories: E. J. Burrows, 29, Lyndhurst Road, Highams Park, Essex, and Chas. Anning, "Ellerslie," Sylvan Road, Snaresbrook, Essex. Private company. First directors (who are to number not less than two nor more than seven) are E. M. Carter, R. S. Todd and A. M. Chance, junr.

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### THE SARATA (ROUMANIA) OIL COMPANY, LIMITED.

Registered on January 20th, by G. Reader & Co., 35, Coleman St., E.C. Capital £50,000, in 5s. shares. Objects: To acquire lands, properties, etc., in Roumania and elsewhere; to explore or prospect for petroleum, or other oil, bitumen, pitch, asphalt, naphtha, ozokerite, etc.; and to carry on the business of refiners and dealers in the same; also to enter into an agreement with the Multipar Syndicate, Limited. Minimum cash subscription, seven shares. Signatories include: A. H. Farley, 73, Basinghall Street, E.C.; A. N. Morris, Glencoe Hill Lodge, Blackheath; W. A. G. Chadick, 35, Coleman Street, E.C.; J. Batting 201A, Lavender Hill, S.W.; W.V. Newy, 56, Hazeldine Goodmayes, Essex, and G. E. H. Reader, Broadfield House, Melville Road, Croydon. First directors (who are to number not less than two nor more than five) have not yet been appointed. Qualification (other than first directors): 100 shares. Remuneration: £100 each per annum; chairman, £150.

◆

### MIDIAN. LTD.

Registered on January 16th, by W. A. Habberfield, 15, Angel Court, E.C. Capital £20,000, in 5s. shares. Objects: To acquire any farms, claims, quarries, mines, water and dredging rights, and mining, petroleum, or other oil-bearing lands, and to carry on the business which may seem to the company capable of being conveniently carried on in connection with the businesses which the company is authorised to carry on. Minimum cash subscription, 10 shares. First directors (who shall not be more than seven) are Herbert Leigh, Bromhead, Remuneration, £250 per annum. Registered office: 15, Angel Court, Throgmorton Street, E.C.

◆

### THE AUSTRALIAN OIL PROPERTIES, LIMITED.

Registered on January 23rd, by Lawrence Jones & Co., 4, St. Mary Axe, E.C. Capital £10,000, in £1 shares (1,000 preferred). Objects: To acquire (*a*) a licence to search for oil over five square miles of territory in Eyres Peninsula, South Australia, and (*b*) the option to acquire six other similar licences. Vendors: F. L. Duffield, L. W. Shepheard, G. St. John Sanders, and six others. Purchase consideration payable to Messrs. Duffield, Shepheard & Sanders, £9,200 (£200 cash and £9,000 shares); to six other vendors, £1 for each licence taken up under option. F. L. Duffield is the promoter. Also to carry on the business of manufacturing, distilling, precipitating, refining and otherwise dealing in crude and refined oils, sulphate of ammonia and all products, or by-products, of oils and petroleum, and to enter into an agreement with F. Lindley Duffield, L. W. Shepheard and G. St. John Sanders. Minimum cash subscription, 10 shares. First directors (who are to number not less than two nor more than nine) are: G. W. McArthur, J. R. Parsons, F. L. Duffield and H. Likely. Qualification: One share. Registered office: College Hill Chambers, Cannon Street, E.C.

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## MR. A. ADIASSEWICH STUDIES AMERICAN OIL CONDITIONS.

A distinguished Russian mining engineer, Mr. Alexandre Adiassewich, F.R.G.S., M.I.M.M., of St. Petersburg, representing the Imperial Russian Department of Commerce and Industry, has recently spent several days in a study of Texas oil conditions. He came here, says the *Fuel Oil Journal*, from California, where he made an investigation of the oil situation and of methods of drilling, and is now on his way back to Russia. Later, he expects to return to this country for the purpose, among other matters, of visiting the Oklahoma oilfields.

Mr. Adiassewich first went to Washington, D.C., on his arrival in America, and was the guest of Dr. David T. Day, head of the Department of Petroleum Research and Statistics of the United States Geological Survey. There he had access to all Government reports bearing on the petroleum industry, and he familiarised himself with these before proceeding to California. He speaks English fluently, also the various important languages of the European continent, and is a man of wide learning and many accomplishments. His work as a chief engineer in the Government Mining Department has made him an authority on the Baku oilfields.

According to Mr. Adiassewich, the production of the Baku fields to date has been 1,500,000,000 barrels, all of which has come from an area of 2,500 acres. He has been very favourably impressed with the methods of drilling in vogue in California, especially the combination of rotary and cable tools, and believes strongly in the future of the rotary in Russia and other European countries. The failure of the rotary to gain a firm foothold in Russia up to this time he attributes to the fact that rigs too light for the undertaking have been installed, and to the indifference of the crews that were sent, in some instances, to operate them. He mentions one case wherein frequent breakdowns were reported, and the men on the job showed absolutely no interest in the work. The heaviest type of rotary and the most skilful drillers, are required for the Baku territory, where, with the native outfit, wells are started having a diameter at the surface of 42 inches. It is practicable with the rotary process to greatly reduce the diameter.

Mr. Adiassewich, continues the *Fuel Oil Journal*, brought a letter of introduction from John Gillespie, of London, foreign agent for the Johnston rotary drilling outfits, to Walker Ellis, Houston manager of the American Well & Prospecting Company, and made his headquarters with Mr. Ellis while here. Lee C. Moore, of Pittsburg, Pa., who is spending the winter in Houston, took Mr. Adiassewich to Humble on December 27th, where they went over the field visiting, among other points of interest, the Producers Oil Company's Carroll lease, on which there is a deep well producing 3,500 barrels of oil a day.

# The American Oil Market.

◆

### Saturday, January 17th, 1914.

WITH a continued even market for crude, says the *Oil Paint and Drug Reporter*, interest of the week centres in the reports of the pipeline companies for December. Covering the principal fields of the country, with the exception of California, the runs have totalled 10.611,869 barrels, and deliveries have amounted to 12,489,058 barrels, with stocks at the close of the month aggregating 67,951,421 barrels. November returns indicated 10,097,853 barrels in runs, 12,223,579 barrels in deliveries and 67,694,033 barrels in stocks at the close of the month. In the various fields there were shown gains in runs during December in the Pennsylvania fields, Lima, Indiana, Illinois and Kansas-Oklahoma, while losses were registered in Kentucky and the Texas-Panhandle fields. There were gains in deliveries in Indiana, Kentucky, Illinois and Kansas-Oklahoma, with declines noted in Lima and the Pennsylvania fields. In the comparison of stocks at the close of December, increases are shown in Indiana, Kansas-Oklahoma and the Texas-Panhandle fields, while losses are recorded in the Pennsylvania fields, Lima, Kentucky and Illinois.

Advices from Mid-continent fields indicate more promising conditions for field work, and with a continuance of these conditions it is believed the active campaign of last fall will be duplicated this spring, despite the warning of the leading operating company against a further draft on storage facilities incidental to the continued over-production. Our correspondent, however, raises the question as to whether as much oil can be produced as has been the recent record of the field. Many of the big pools have apparently seen their most prolific development, and no new pools are now being found. It is considered doubtful whether the present output of the field can be maintained during the present year unless a vast amount of drilling is undertaken. Cushing has shown its remarkable ability to come back, several excellent wells having been drilled during the last few days. A large amount of work is in progress in the Boston pool in the Osage, but general results are not regarded as satisfactory. There is said to be promise of a favourable development at Allen. The week's operations in the Kansas fields have been uneventful.

## Refined Products.

The routine course of the local market for illuminating oil has been unvaried over the interval and comparatively little of new interest is to be noted in review. Quotations have remained unchanged for all grades, with a nominally steady tone prevailing. Trading has followed generally light lines, although seasonable conditions have been favourable from the viewpoint of consumption. The record of exports since the first of the year shows a total of 14,543,730 gallons as against 23,480,345 gallons for the same period last year. Chartering for forward shipment has lacked activity, and only one engagement has been closed during the week, 150,000 cases (10 gallons to the case) for Japan or Korea on the basis of 20½ c. for two ports early February loading at New York or Philadelphia. The first details of imports of illuminating oil into the United Kingdom for 1913 show a total of about 157,000,000 gallons, comparing with 145,000,000 gallons for 1912. Our share of last year's supply was more than 120,000,000 gallons, or about 20,000,000 gallons over our record for the previous year. To the 1913 total Roumania contributed nearly 21,000,000 gallons, Russia approximately 10,000,000 gallons, and Mexico about 6,000,000 gallons.

The various naphtha products have undergone no interesting development during the week, and market conditions reflect a stationary character. The usual check to consumption during the cold months has been emphasized by the intensity of the week's weather, but production is well regulated to the reduced requirements and the market retains a nominally steady tendency. The local export movement since the first of the year has totalled a comparatively small amount, 619,490 gallons, as against 2,120,715 gallons for the corresponding period of last year. The record of imports of motor spirits into the United Kingdom for 1913 shows an aggregate of about 101,500,000 gallons, of which the Dutch Indies were the principal source of supply, with about 44,000,000 gallons. It was also first in the 1911 record, contributing 45,000,000 of the general total of 80,000,000 gallons. Our share of the 1912 trade amounted to nearly 24,000,000 gallons, or about 6,000,000 gallons in excess of the 1911 volume. Other sources of supply last year were Russia, with 13,200,000 gallons; Holland, with 7,700,000 gallons, and Roumania, with 5,800,000 gallons.

## Lubricating Oils.

There has been little to encourage a revival of activity in the lubricants during the week, and trading is still suggestive of holiday conservatism. Dealers are generally confident that many of the consuming interests are operating on a close margin of supplies, and with the first indications of commercial animation buyers are expected in the market at a more liberal scale.

### CLOSING QUOTATIONS.

CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were :—

| | 1913. Jan. 17. | 1914. Jan. 17. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.05 | $2.50 |
| North Lima ... ... ... ... | 1.28 | 1.49 |
| South Lima ... ... ... ... | 1.23 | 1.44 |
| Indiana ... ... ... ... ... | 1.23 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.11 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.83 | 1.03 |
| Humble, Tex. ... ... ... ... | 0.75 | 0.90 |
| Saratoga ... ... ... ... ... | 0.75 | 0.90 |
| Sour Lake, Tex.... ... ... ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| ,, Kern River heavy ... | — | 0.35 |
| CANADIAN OIL ... ... ... ... | 1.68 | 1.89 |

REFINED—FOR EXPORT.

| In cents. | Week ended Jan. 17. S.W. 110 test. | W.W. 150 test. |
|---|---|---|
| Bulk, New York ... per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... ... | 8·75 | 9·75 |
| Cases, New York ... ... ... | 11·25 | 12·25 |
| Cases, Philadelphia ... ... ... | 11·25 | 12·25 |

NAPHTHA AND GASOLINE.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... .. ... ... | 29½ |

REFINED IN CASES—110 FIRE TEST.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

REFINED—JOBBING LOTS.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½–9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 2,384,735 | 2,384,735 | 2,545,545 |
| Refined ... ... | 18,780,480 | 21,892,980 | 28,716,270 |
| Naphtha ... | 634,660 | 634,660 | 2,229,265 |
| Gas oil ... ... | 3,050,000 | 3,050,000 | 6,340,240 |
| Fuel oil... ... | 4,351,500 | 4,354,000 | 4,697,110 |

WORTHINGTON & BOLER,

LIVERPOOL, LONDON & GLASGOW

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co, 61, St. Mary Axe, E.C.

January 30th, 1914.

The official prices of Refined Petroleum in barrels ex wharf are as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS

are unchanged as follows:—

| | |
|---|---|
| No. 1 Russian, | £12. 2s. 6d. |
| No. 2 Russian, | £10. 17s. 6d. |
| American pale, from | £9. 10s. 0d. |
| American dark, from | £10. 15s. 0d. |
| American filtered cylinder, from | £13. 2s. 6d. |

### FUEL OIL

The market price is 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 80s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

The best quality is quoted 1s. 9d. and the second quality 1s. 7d. per gallon retail in London.

### TURPENTINE.

The American Turpentine market is quite a firm one. The latest quotations being for spot in February 32s. 4½d.; February/April, 32s. 9d.; May/August, 33s. 7½d.

## LIVERPOOL.

January 28th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, December 31st.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., „ ... | 5 | 12 | 2 | „ |
| Chester Brand, 75 deg., Abel „ ... | 5 | 2 | 2 | „ |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | „ |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | „ |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | „ |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | „ |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... ... ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... ... ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| „ Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| „ „ per 8 gallons ... .... ... ... | 3 | 11 | 0 |
| „ Victoria, per two tins .... ... ... ... | 3 | 11 | 6 |
| „ „ per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| „ „ „ 2nd quality ... ... ... | 0 | 3 | 0 |
| „ Candles, per pound ... ... ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, January 28th.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

PHILADELPHIA, January 28th.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, January 27th.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, January 27th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 37–38 copecs per pood spot. Kerosene, 47–47½ copecs. Residuals, 36–36½ copecs.

## ROUMANIA.

January 27th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·15 |
| „ „ „ | Moreni ... | 7·00–7·80 |
| „ „ „ | Tzintea ... | 5·50–6·25 |
| „ „ „ | Policiori... | 5·30 |
| „ „ „ | Bana ... | 9·50–10·80 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| „ sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| „ sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| „ sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

January 27th.

Crude oil is quoted 8·02 kronen spot. Kerosene, 28½ kronen at Oderberg. Benzine, 690/700, 42 kronen; 700/710, 40 kronen, at Oderberg. Gas oil, 7·50 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date January 29th as follows:—

A change has come over the market and prices, which have long below cost, are higher all round. This is due to large orders coming on the market which have been held over in anticipation of lower rates, and to the projected "pooling" arrangement, whereby the production is to be regulated. We make prices of oil sizes to-day as under:—

| | | | | |
|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/6 per box. |
| 1c | 20 ×10 | 225 „ | 156 „ ... | 18/9 „ |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL

Contracted for by

**JOHN M. THOM,**

Canal Works,

**Patricroft, MANCHESTER.**

CONTRACTOR TO H.M. GOVERNMENT.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

**Specially prepared for this Journal by the Customs House.**

FOR THE WEEK ENDED JANUARY 26TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Jan. | LONDON— | | | |
| 13 | A. Hopps & Sons ... ... | M. Colza | 1,000 | Baltimore |
| 13 | E. G. Boize ... ... ... | Lub. Oil and Gr. | 1,100 | Hamburg |
| 20 | Motor Petrol Association ... | Benzine | 4,400 | Brussels |
| 20 | Asiatic Petroleum Co. ... | ,, | 10,000 | Rotterdam |
| 20 | J. Thompson... ... ... | Lub. Gr. | 2,910 | New York |
| 20 | Worthington & Boler ... | Lub. | 4,800 | ,, |
| 20 | C. Poulter ... ... ... | ,, | 400 | Hamburg |
| 20 | Price's Patent Candle Co. ... | ,, | 400 | St. John's |
| 20 | Port Authority ... ... | ,, | 1,260 | Antwerp |
| 20 | Leach & Co. ... ... ... | ,, | 120 | Ghent |
| 20 | Bowring Petroleum Co. ... | ,, | 8,920 | Philadel. |
| 21 | Port Authority ... ... | ,, | 2,500 | Hamburg |
| 21 | Langley, Smith & Co. ... | Lub. Gr. | 2,470 | ,, |
| 21 | Hanseatic Maritime Agency | Lub. | 40 | Bremen |
| 21 | Anglo-American Oil Co. ... | ,, | 43,800 | New York |
| 21 | Vacuum Oil Co. ... ... | ,, | 16,800 | ,, |
| 21 | Union Lighterage Co. ... | ,, | 8,000 | ,, |
| 21 | Mercantile Lighterage Co. ... | ,, | 14,280 | ,, |
| 21 | Anglo-American Oil Co. ... | Lub. Gr. | 400 | ,, |
| 21 | Mordaunt Bros. ... ... | Lub. | 2,700 | Philadel. |
| 21 | Mercantile Lighterage Co.... | ,, | 5,800 | ,, |
| 22 | G. W. Sheldon & Co. ... | ,, | 850 | ,, |
| 22 | Vacuum Oil Co. ... ... | ,, | 8,100 | New York |
| 22 | Asiatic Petroleum Co. ... | Benzine | 1,805,000 | Burma |
| 23 | Vacuum Oil Co. ... ... | Lub. | 240 | Hamburg |
| 23 | Asiatic Petroleum Co. ... | Benzine | 1,359,000 | Port Tewfik |
| 23 | Motor Petrol Association ... | ,, | 9,340 | Brussels |
| 24 | Craven & Co.... ... ... | Lub. | 80 | Hamburg |
| 24 | Port Authority ... ... | ,, | 2,570 | ,, |
| 26 | E. G. Boize ... ... ... | Lub. Oil and Gr. | 920 | ,, |
| 26 | J. Thompson... ... ... | Lub. | 2,550 | Philadel. |
| | QUEENBORO— | | | |
| 20 | Anglo-Mexican Petroleum Products Co. | Fuel | 472,000 | P. Mexico |
| | LIVERPOOL— | | | |
| 20 | Meade-King, Robinson & Co. | Lub. | 18,120 | Baltimore |
| 20 | ,, ,, | M. Colza | 2,600 | ,, |
| 20 | Bowring Petroleum Co. ... | ,, | 2,850 | ,, |
| 20 | Burnaby & Chantrell ... | ,, | 1,410 | ,, |
| 20 | ,, ,, ... | Lub. | 9,210 | ,, |
| 21 | D. Currie & Co. ... ... | Lub. Oil and Gr. | 2,680 | Hamburg |
| 21 | Cunard Steamship Co. ... | Lub. | 2,400 | New York |
| 21 | Burnyeat & Dalzell... ... | ,, | 160 | Bergen |
| 21 | Worthington & Boler ... | ,, | 1,000 | New York |
| 22 | Huxley & Co. ... ... | ,, | 3,300 | ,, |
| 22 | Meade-King, Robinson & Co. | ,, | 1,520 | ,, |
| 22 | Cunard Steamship Co. ... | ,, | 2,400 | ,, |
| 22 | Great Western Railway ... | ,, | 2,600 | Baltimore |
| 23 | Vacuum Oil Co. ... ... | Lub. Oil and Gr. | 63,360 | New York |
| 22 | Anglo-American Oil Co. ... | Lub. | 24,400 | ,, |
| 24 | Vacuum Oil Co. ... ... | Lub. Oil and Gr. | 47,780 | ,, |
| 26 | A. B. Fleming & Co. ... | Lub. Gr. | 200 | Hamburg |
| 26 | Great Western Railway ... | Lub. | 2,000 | ,, |
| 26 | Pickford's ... ... ... | Lub. Oil and Paste | 500 | ,, |
| 26 | Worthington & Boler ... | Lub. | 800 | New York |
| 26 | ,, ,, ... | ,, | 2,000 | ,, |
| 26 | Anglo-American Oil Co. ... | ,, | 7,600 | ,, |
| 26 | Fellows, Morton & Clayton | ,, | 1,060 | ,, |
| 26 | G. B. Taylor ... ... ... | ,, | 840 | ,, |
| 26 | Huxley & Co. ... ... | ,, | 1,100 | ,, |
| 26 | White Star Line ... ... | ,, | 1,000 | ,, |
| 26 | C. W. Field ... ... ... | ,, | 500 | Antwerp |
| | BRISTOL— | | | |
| 20 | Anglo-American Oil Co. ... | Lamp | 2,288,000 | New York |
| 21 | British Petroleum Co. ... | Gas | 205,000 | Port Arthur |
| 21 | ,, ,, ... | Fuel | 203,400 | ,, |
| 22 | Anglo-American Oil Co. ... | Gas | 527,420 | Philadel. |
| 22 | Ford & Canning ... ... | Lub. | 9,400 | New York |
| 22 | C. Hill & Sons ... ... | ,, | 2,120 | ,, |
| 23 | British Petroleum Co. ... | Lamp | 1,860,000 | Port Arthur |
| 26 | C. Hill & Sons ... ... | Lub. | 6,100 | New York |
| 26 | Colthurst & Harding ... | ,, | 240 | Hamburg |
| Jan. | CARDIFF— | | | |
| 20 | Furness, Withy & Co ... | Lub. | 820 | Antwerp |
| | GOOLE— | | | |
| 23 | Goole Steamship Co. ... | ,, | 60 | Hamburg |
| | GRIMSBY— | | | |
| 19 | J. Sutcliffe & Son ... ... | ,, | 500 | Antwerp |
| 20 | ,, ... ... | ,, | 1,280 | ,, |
| 22 | ,, ... ... | ,, | 50 | Hamburg |
| 22 | W. Moran & Co. ... ... | Lamp | 212,940 | Kustendje |
| | HARWICH— | | | |
| 19 | Great Eastern Railway ... | Lub. | 160 | Antwerp |
| 21 | ,, ,, ... | ,, | 280 | ,, |
| 22 | ,, ,, ... | ,, | 80 | ,, |
| | HULL— | | | |
| 21 | T. Wilson, Sons & Co. ... | ,, | 26,000 | New York |
| 22 | W. Gilyott & Co. ... ... | ,, | 57,400 | ,, |
| 22 | Wilson's & N. E. Railway ... | ,, | 360 | Hamburg |
| 22 | ,, ,, ... | ,, | 1,000 | Antwerp |
| 23 | H. Samman & Co. ... ... | ,, | 40 | Bremen |
| 23 | T. Wilson, Sons & Co. ... | ,, | 1,000 | Bergen |
| 23 | ,, ,, ... | ,, | 7,400 | New York |
| 26 | ,, ,, ... | ,, | 80 | Copenhagen |
| 26 | Wilson's & N. E. Railway ... | ,, | 560 | Hamburg |
| 26 | ,, ,, ... | ,, | 480 | Antwerp |
| | MANCHESTER— | | | |
| 19/12 | Anglo-American Oil Co. ... | ,, | 7,730 | New York |
| 21 | Liverpool Storage Co. ... | ,, | 3,550 | ,, |
| 22 | W. Hodgson & Co. ... ... | Lub. Gr. | 410 | ,, |
| 22 | Anglo-American Oil Co. ... | Lub. | 93,280 | ,, |
| 22 | W. W. Jones, Dooly & Co.... | ,, | 6,000 | ,, |
| 22 | T. Meadows & Co. ... ... | ,, | 340 | ,, |
| 23 | Diamond Lubricating Co. ... | Lub. Oil and Gr. | 11,500 | ,, |
| 23 | Worthington & Boler ... | Lub. | 2,100 | ,, |
| 23 | ,, ,, ... | ,, | 7,350 | Philadel. |
| 23 | D. Currie & Co. ... ... | ,, | 780 | Hamburg |
| 33 | ,, ,, ... ... | ,, | 2,200 | ,, |
| 23 | Meade-King, Robinson & Co. | ,, | 13,800 | Philadel. |
| 23 | F. Schofield & Co. ... ... | ,, | 3,700 | N. Orleans |
| 23 | Bramwell, Fern & Co. ... | ,, | 9,880 | Philadel. |
| 24 | F. Leyland & Co. ... ... | ,, | 2,000 | New York |
| 26 | Crew, Levick & Co. ... ... | ,, | 6,060 | Philadel. |
| 26 | C. H. Morton & Son... ... | ,, | 2,600 | ,, |
| 26 | Liverpool Storage Co. ... | ,, | 19,500 | New York |
| 26 | British Petroleum Co. ... | Fuel | 413,900 | Port Arthur |
| 26 | ,, ,, ... | Gas | 411,000 | ,, |
| | NEWCASTLE— | | | |
| 22 | Tyne-Tees Steamship Co. ... | Lub. | 2,000 | Antwerp |
| 23 | ,, ,, ... | ,, | 1,940 | Hamburg |
| 23 | P. H. Matthiessen & Co. .. | ,, | 220 | Bergen |
| 26 | ,, ,, ... | ,, | 190 | ,, |
| | SOUTHAMPTON— | | | |
| 12 | Bowring Petroleum Co. ... | Lamp | 672,000 | Port Arthur |
| | SWANSEA— | | | |
| 22 | R. Turpin & Co. ... ... | Lub. | 700 | New York |
| 24 | M. Jones Bros. ... ... | ,, | 200 | Bergen |
| | GLASGOW— | | | |
| 20 | Clyde Shipping Co.... ... | Lub. Gr. | 160 | Antwerp |
| 22 | Donaldson Bros. ... ... | ,, | 1,000 | Baltimore |
| 26 | Anchor Line ... ... | Lub. | 20,220 | New York |
| 26 | Allan Bros. & Co. ... ... | ,, | 58,850 | Philadel. |
| | GRANTON— | | | |
| 21 | Ch. Salvesen & Co. ... ... | ,, | 1,230 | Gothenburg |
| | GRANGEMOUTH— | | | |
| 21 | Jas. Currie & Co. ... ... | ,, | 160 | Hamburg |
| 22 | J. Rankine & Son ... ... | ,, | 1,480 | Antwerp |
| | LEITH— | | | |
| 19 | G. V. Turnbull & Co. ... | ,, | 2,500 | Baltimore |
| 19 | Jas. Currie & Co. ... ... | ,, | 11,000 | Hamburg |
| 21 | G. Gibson & Co. ... ... | ,, | 3,720 | Antwerp |
| 22 | Jas. Currie & Co. ... ... | ,, | 1,080 | Hamburg |
| 23 | ,, ... ... | ,, | 240 | Bremen |
| 26 | G. Gibson & Co. ... ... | ,, | 160 | Antwerp |
| | BELFAST— | | | |
| 22 | J. C. Pinkerton & Co. ... | ,, | 180 | ,, |
| | DUBLIN— | | | |
| 24 | Anglo-American Oil Co. ... | Gas | 807,500 | Sabine |
| | | | 12,012,720 | |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### A Remarkable Production.

THE details of the crude oil production of the Royal Dutch-Shell group during the past twelve months, which are reproduced elsewhere in this issue, show to what a remarkable extent the operations of this powerful combine have grown during the past few years. An annual output of three and three-quarter million tons is, of course, a record for any one concern in the petroleum industry, but there is no doubt that during the present year these figures—enormous though they are—will be greatly augmented, for the combine has been fortunate in its selection of oil-producing territory in both hemispheres. Its production in the Far East is well maintained; in Russia and Roumania it has secured a very substantial slice of the output, while in America—the scene of its latest activities—it is making rapid headway, both in California, Oklahoma and Mexico, where through its subsidiary (La Corona) it holds lands of the first order, which have already proved their ability to produce wells giving forth over 2,000 tons of crude oil daily. The progress of this powerful amalgamation stands without precedent in the annals of oil.

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### America and its Liquid Fuel Supplies.

FOLLOWING upon the suggestion contained in the annual report of Secretary Daniels, of the American Navy Department, already referred to in the REVIEW, regarding the securing of oil fuel for the Navy, a resolution has been presented in the Senate by Senator Gore, of Oklahoma, to carry out this idea in the Oklahoma oilfields. The resolution reads as under :—

> "That the Secretary of the Navy and the Secretary of the Interior are hereby authorised and directed to investigate and report as to the feasibility, expense and desirability of the Government constructing, maintaining and operating a pipeline for the transportation of oil from the Mid-continent oilfield in Oklahoma to some convenient port on the Gulf of Mexico, together with storage and other necessary facilities, and also as to the feasibility, expense and desirability of the Government acquiring oil lands or leases from the Indian and other owners, and producing or purchasing oil with a view to providing and conserving at all times an adequate and available supply of oil for the use of the Navy and for other purposes."

It is evident from the above that not only will the United States Government in future endeavour to conserve their full supplies as much as possible, but, if necessary, the export of oil fuel will be curtailed if not totally stopped.

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### More Openings for Californian Liquid Fuel.

THAT California is feeling the benefit from the advent of the age of liquid fuel is noticeable in many directions, and the fact that though production last year considerably increased in spite of the curtailment of drilling operations, though there was only a slight augmentation in the crude oil stocks above ground, suggests that several additional outlets were cultivated during the twelve months. The latest prospect for a substantially increased demand for oil fuel is found on the Canadian Transcontinental Railways, which have been ordered by the Canadian Government to equip their locomotives on the western divisions with oil-burning apparatus. The Californian territories are the only ones at sight near to home which are capable of meeting this great new demand. Then the opening of the Panama Canal provides additional facilities for Californian oil to reach the Atlantic coast, where rumour has it, extensive depôts are to be erected at several points for its reception. It is reasonable to assume, therefore, that with the return of better weather, a decided impetus will be given to development work in California's producing fields.

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### Maikop and its Future.

IT is particularly interesting to note that those practical oilmen who have closely studied the developments which have taken place in the Maikop field are more confident than ever as to its ultimate success as a great oil-producing region. With comparatively little fresh drilling proceeding, it is unreasonable to expect that any great progress can be reported in connection with the bringing-in of new wells, but occasionally strikes of undoubted significance are recorded. One of these is that upon the property of the Maikop New Producers, on plot 554, at a depth of 645 ft, situated a considerable distance to the north-east of the hitherto producing area in the southern portion of the field. Then there is the encouraging result on plot 108, in the north-west part of the Maikop region, where the Deep Drilling Company is closely guarding the secret of its success. The prospects for the early development of the Kabardinsky region are decidedly encouraging, and we should not be surprised to find an active drilling campaign inaugurated in this district during the coming summer.

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## BLACK SEA OILFIELDS, LTD.

The report of the directors of the Black Sea Oilfields, Ltd., to be presented to the meeting next Tuesday, covers the twelve months ended July 13th, 1913, and states that the profits of the year's working amount to £41,404. Adding the amount brought forward of £10,046, there is a total available for appropriation of £51,449. The directors have decided to write off on account of depreciation £20,878, to reserve for depreciation on investments £3,819, commission payable on profits £250, and to carry forward the balance (subject to the payment of Russian taxes) £26,501. The total production of crude oil for the period under review was 2,512,315 poods. This has been chiefly obtained from the Shirvanskaya district, where operations were actively continued during the year. The crude oil on hand at the close of the period has been taken at equal to 40 copecs per pood at Ekaterinodar. The stocks, both of crude oil and of refined products, have since been delivered at higher prices than those shown in the balance-sheet. As referred to in the last quarterly report to September 30th, 1913 (o.s.), a system of gas compressors has been installed, with the result that a considerable saving of crude oil—hitherto used for fuel—has been effected. In the Neftianaya district, where two wells have been drilled—so far without definite results—work has been temporarily suspended pending the result of operations now being carried on by other companies in the neighbourhood. Several small wells drilled by the company in the Khadijinskaya district have proved that a payable production at present prices can be obtained at a comparatively shallow depth. Further wells are now being put down.

The board has received a favourable offer for the purchase of the company's refinery at Shirvanskaya, and after careful deliberation has decided that it will be in the best interests of the company that this offer should be accepted. The directors desire, however, that shareholders should have the opportunity of expressing their views on the matter. Accordingly an extraordinary general meeting of the company will be held for this purpose as soon as possible.

## SITUATIONS VACANT.

REFINERY MANAGER (BRITISH) WANTED for tropics, acquainted with modern Continental practice. Good salary for first-class man. Apply Box "T. H.," Petroleum Review, 45, St. Mary Axe, E.C.

FIELD MANAGER required for oil company in Madagascar, with practical experience with Sta and other drills. Knowledge of geology and capable of selecting bore sites. Write qualifications "Sakalava,' 9, Sydney House, Bedford Park, W.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended January 31st was 123,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended February 1st was 303,150 poods, or about 4,896 tons. The total production for the year from January 14th to February 1st was 781,550 poods, or about 12,606 tons. The total production for the corresponding period last year was 719,255 poods, or about 11,601 tons. Price of crude oil at Baku is now 38 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended January 31st was 21,562 poods, or 398 tons.

European Oilfields Corporation, Ltd. — The production for the week ended February 1st was 101,000 poods.

Baku Russian Petroleum Company, Ltd.—The production for the week ended January 31st was 124,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended January 31st was 22,830 poods (368 tons).

Maikop New Producers, Ltd.—Production for week ended January 31st was 5,600 poods (90 tons).

British Maikop Oil Company, Ltd.—Production for week ended February 1st was 14,581 poods, or 235 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended January 31st, 112,765 poods, or 1,819 tons.

North Caucasian Oil Fields, Ltd.—The latest production for week ended February 3rd was 329,425 poods, or 5,310 tons. Corresponding period last year, 1,642 tons.

Bibi-Eibat Petroleum Company, Ltd.—Production for the week ended February 1st was 90,600 poods, or 1,461 tons.

Maikop Midland.—Production at Krimskaya for week ended January 31st was 4,400 poods, or 71 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended January 31st was 16,060 poods (259 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended January 31st was 995 poods (16 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended January 31st was 3,500 poods, or 56 tons.

Cheleken Oilfields, Ltd.—Estimated production for the fortnight ending January 31st was 1,402 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone City 8840 (4 lines).
LONDON, E.C.

# THE RUSSIAN PETROLEUM INDUSTRY.

## A DETAILED RETROSPECT OF 1913.

THE total production of petroleum on the four main Baku areas during 1913 amounted to 389,000,000 poods (including 3,900,000 poods of spouted oil), as against 419,100,000 poods (including 13,200,000 poods of spouted oil) obtained during 1912, and 425,400,000 poods (including 10,300,000 poods of spouted oil) obtained during 1911. The production during the four quarters was as follows:

First, 101,100,000 poods (including 1,700,000 poods of spouted oil); second, 102,600,000 poods (including 200,000 poods of spouted oil); third, 84,700,000 poods (none of spouted oil); fourth, 100,600,000 poods (including 2,000,000 poods of spouted oil).

Thus the very modest expectation of the production during 1913 reaching the round figure of 400,000,000 poods has not been justified, notwithstanding the breaking out during the end of the year of the unexpected large spouter. The production during the last quarter is especially interesting, as from it we can judge at what rate the productivity of the wells has been decreasing during the year, which could not be ascertained during the third quarter owing to the strikes having then taken place. The following table shows the production during each month of the last quarter:—

| | Total production. | Average daily production. |
|---|---|---|
| October ... | 37,200,000 poods. | 1,200,000 poods. |
| November ... | 32,100,000 ,, | 1,071,000 ,, |
| December ... | 33,000,000 ,, | 1,064,000 ,, |

The following table shows the yearly production of the principal firms during 1913 as compared with that during 1912:—

| | Production during 1913. Poods. | Production during 1912. Poods. | | Poods. |
|---|---|---|---|---|
| Aramazd ... ... ... | 6,600,000 | 5,500,000 ... | inc. | 1,100,000 |
| Assodullæff ... ... | 6,700,000 | 7,100,000 ... | dec. | 400,000 |
| Baku Petroleum Co. ... | 19,300,000 | 18,400,000 ... | inc. | 900,000 |
| Born ... ... ... | 6,300,000 | 7,000,000 ... | dec. | 700,000 |
| Benkendorf ... ... | 3,900,000 | 5,300,000 ... | ,, | 1,400,000 |
| Bibi-Eibat Petroleum Co. | 4,900,000 | 6,600,000 ... | ,, | 1,700,000 |
| European Petroleum Co. | 5,200,000 | 5,500,000 ... | ,, | 300,000 |
| Zoubaloff... ... ... | 11,900,000 | 16,500,000 ... | ,, | 4,600,000 |
| Kavkaz Co. ... ... | 8,600,000 | 9,600,000 ... | ,, | 1,000,000 |
| Caspian Society ... ... | 14,200,000 | 16,800,000 ... | ,, | 2,600,000 |
| Caspian & Black Sea Co. | 23,700,000 | 25,500,000 ... | ,, | 1,800,000 |
| Mantascheff ... ... | 23,400,000 | 24,800,000 ... | ,, | 1,400,000 |
| Melikoff ... ... ... | 5,600,000 | 5,900,000 ... | ,, | 300,000 |
| Mirzoeff ... ... ... | 13,000,000 | 14,400,000 ... | ,, | 1,400,000 |
| Moscow Caucasian Soc. | 13,700,000 | 15,500,000 ... | ,, | 1,800,000 |
| Nagieff Mussa ... ... | 6,900,000 | 8,100,000 ... | ,, | 1,200,000 |
| Nobel Bros. ... ... | 47,800,000 | 58,100,000 ... | ,, | 10,300,000 |
| Oleum Co. ... ... | 5,100,000 | 6,200,000 .. | ,, | 1,100,000 |
| Pitoeff ... ... ... | 12,800,000 | 13,600,000 ... | ,, | 800,000 |
| Runo ... ... ... | 11,700,000 | 12,000,000 ... | ,, | 300,000 |
| Russian Naphtha Society | 11,000,000 | 10,100,000 ... | inc. | 900,000 |
| Russian Bibi-Eibat Co. | 3,100,000 | 5,900,000 ... | dec. | 2,800,000 |
| Schibieff ... ... ... | 5,300,000 | 6,300,000 ... | ,, | 1,000,000 |

The average number of exploited wells at the beginning of each month was 2,670, as against 2,412 during 1912. The total number of wells on December 1st last amounted to 2,800. This notable increase in the number of exploited wells naturally proves the decrease in the average productivity, which is still more clearly shown if we consider the average daily production per well, which for 1913 was equal to 412 poods, while during 1912 it was equal to 472 poods.

The number of wells producing the small amount of 50 and less poods per day increases with a dangerous rapidity. The number of such wells during 1907 was 66, while in 1912 it was 230. The decrease in the production during 1913 is especially lamentable in view of the fact that the whole of 1911, 1912, and 1913 were years of energetic boring, which can easily be seen from the figures showing the number of feet bored in the wells, which amounted during the last quarter of 1910 to a monthly average of 21,245 ft., in 1911 to 26,166 ft., and in 1912 to a monthly average of 31,388 ft.

During the first quarter of 1913 28,336 ft. were bored per month, during the second quarter 44,870 ft., and during July 33,432 ft., and August 28,007 ft. (July and August were months of the strike). During September 44,436 ft. were bored, October 45,521 ft., and November 38,836 ft. During the whole year 1913 there were bored about 455,000 ft.

If we pass to other areas we shall notice a decrease in the productionon the isle of Tcheleken and at Maikop. The yearly production during 1913 on the isle of Tcheleken hardly reaches a total of 8,000,000 poods, that is to say, it is by 38·5 per cent. less than the production in 1912. The production at Maikop is decreasing at almost the same rate. Instead of the 9,000,000 poods produced during 1912, only 6,000,000 poods were produced in 1913, thus showing a decrease of one-third of the total. On the two areas the total decrease amounts to 8,000,000 poods. Altogether the total decrease for the four old Baku areas, Tcheleken and Maikop, amounts to over 37,000,000 poods, of which 31,000,000 are covered by the increase in the production on other areas, and 6,000,000 will be the total deficiency of 1913 as compared with that of 1912. The maximum increase in the production took place at Surakhany, where it amounted to 39,200,000 poods. The first place among the Surakhany firms as regards production belongs to Messrs. Nobel Bros. with a production of 13,500,000 poods, then comes the Caspian and Black Sea Company with 8,800,000 poods, Benkendorf with 7,800,000 poods, Assadullaeff with 2,500,000 poods, and Baku Petroleum Company with 2,200,000 poods. Thus these five firms obtained 87·8 per cent. of the total Surakhany production, while the remaining 12·2 per cent. was obtained by the other sixteen firms.

The Surakhany production, as compared with that of 1912, shows an increase, as already stated, of 8,000,000 poods, or 22·2 per cent. Boring at Surakhany has also increased considerably, and amounted during the year to 84,000 ft., as against 58,457 ft. in 1912.

The production at Binagadi also shows a very considerable increase from 10,000,000 poods in 1912 to 15,000,000 poods in 1913. In the same degree has also increased the production from hand-dug wells in the main areas and along the railway lines, which during the year amounted to 19,000,000 poods, as against 15,000,000 poods in 1912, but recently the production from hand-dug wells has commenced to decrease, which must be ascribed to the energetic measures of controlling this industry, which endangers human lives.

The production on the isle of Swaitoi has also considerably increased, namely, from 3,000,000 poods to 4,000,000 poods, that is to say, by one-third. Almost the whole of this last production belongs to Messrs. Nobel Bros.

Grosny shows an increase in its production from 65,000,000 poods in 1912 to 73,000,000 poods in 1913. This considerable increase corresponds to very energetic boring, which during November, for instance, amounted to 1,820 ft. The total number of feet bored during the year amounts to 180,425, that is to say, by over 51·4 per cent. more than during 1912, which latter year shows an increase of 63·2 per cent. as against boring in 1911. For the first time the new Emba district shows a commercial production of 6,000,000 poods.

Altogether the total production of petroleum on all the Russian areas during 1913 is thus by 6,000,000 poods less than in 1912. These results are not so bad, if we compare them with those for the operating years, viz., during the operating year 1912-13 the total production amounts to 561,000,000 poods as against 551,300,000 poods obtained during the operating year 1911-1912 and 552,800,000 poods during the operating year 1910-11.

The inland movements of petroleum and petroleum products have resulted in the total export of 231,000,000 poods of crude oil and residuals shipped to Astrakhan during the navigation, 1913, as against 229,000,000 poods in 1912. The above figure includes 181,800,000 poods of residuals, showing a decrease of 10,000,000 poods against 1912, and 49,200,000 poods of crude oil, showing a decrease of 12,000,000 poods in 1912; at the same time the total reserve at the end of the navigation amounted to 3,000,000 poods more than those at the end of the navigation in 1912, which points to certain changes in the consumption, viz., that a certain number of consumers of liquid fuel have passed to other kinds of fuel, which may also explain the recent fall in the prices. Another reason of the reduction in the consumption of liquid fuel is the increase in the number of inner combustion engines, which, on the other side, results in the increase of the consumption of crude petroleum instead of residuals.

The refining industry does not show any notable change, with the exception of the putting on the market a larger quantity of benzine, viz., 2,300,000 poods as against 1,000,000 poods in 1912.

The export of petroleum products from Batoum and Novorossisk during the year has increased, amounting to 48,000,000 poods, of which 38,200,000 poods were exported from Batoum and 9,800,000 poods from Novorossisk. The total exports of kerosene amount but to 24,500,000 poods, showing an increase of 2,100,000 poods as against 1912. In comparison with previous years the imports of kerosene have been considerably reduced. The exports of benzine, on the contrary, are increasing. The exports of lubricating oils still continue to increase, reaching the figure of 11,600,000 poods during the year, that is to say, they nearly approach the maximum obtained in 1904. Of residuals there were exported during the year 3,800,000 poods, principally to France and Italy.

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## NEW ENGLISH COMPANIES.

### THE INTERNATIONAL OIL LANDS, LTD.

Registered on January 27th by Nicholson, Graham & Jones, 24, Coleman Street, E.C. Capital £200,000, in £1 shares. Objects: To acquire any property, concessions, rights, and options, etc., in Russia and elsewhere, and in particular petroleum or oil-bearing lands, and to carry on the business of dealers in, distillers and refiners of oil, spirit, natural gas, asphalt and ozokerite and other mineral substances. Minimum cash subscription, 10 per cent. of the shares offered for subscription. First directors (who are to number not less than three nor more than ten) are not yet appointed. Qualification, £500. Remuneration of directors, £100 per annum (chairman £150) and 3 per cent. of the divisible profits.

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### UNION CONSOLIDATED OIL COMPANY, LTD.

Registered on January 28th, by J. M. Moore, Jasper House, Copthall Avenue, E.C. Capital £100, in £1 shares. Objects: To acquire any petroleum, asphalt, naphthaline, or oil-bearing lands in North or South America, or elsewhere, and to carry on the business of dealers in and refiners of petroleum and other mineral oils, natural gas, asphalt, and naphthaline, or similar substances, and minerals, etc. Signatories: C. C. Jenson, 21, Crescent Gardens, Wimbledon Park, S.W., and C. M. Armitage, 12a, Alexandra Mansions, Stanlake Road, N. First directors (who are to number not less than two nor more than seven) have not yet been appointed. Private company.

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### THE ASIATIC PETROLEUM COMPANY (PHILIPPINE ISLANDS), LTD.

Registered on January 30th, by Waterhouse & Co., 10 & 12, Bishopsgate, E.C. Capital £15,000, in £1 shares. Objects: To carry on in all its branches the business of producing, refining, storing, transporting, supplying, selling, and distributing of petroleum, and other oils, and any products thereof. Signatories; F. P. Winterbottom, 10 & 12, Bishopsgate, E.C., and H. Kenneth Lee, 12, Dungarvine Avenue, Putney, S.W. First directors (who are to number not less than two nor more than five) have not yet been appointed. Private company.

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### THE BRITISH UNION OIL COMPANY, LTD.

Registered on January 29th, by Linklater & Co., 2, Bond Court, Walbrook, E.C. Capital £100, in £1 shares. Objects: To acquire any oil, petroleum, or mineral-bearing lands, mines, mining rights, etc., and to carry on the business of petroleum, naphtha, and oil refiners, etc. Minimum cash subscription, seven shares. Registered office, 3, Princes Street, E.C.

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**Situation on the Volga.**—The Volga manufacturers who could not for various reasons pass to solid fuel are limiting their purchases of petroleum as much as possible, expecting the price to come down, so that no transactions are now being made.

# The Advantages of Diesel Engines for Marine Purposes.

## Comparative Analysis of Oil and Coal Costs.

*Reprinted from the "Petroleum Age."*

By Mr. **JOHN L. BOGERT**, Engineer American Krupp System—Diesel Engine Company.

Fuel is available to-day in the solid, liquid, and gaseous states, and it is interesting to compare the possibilities of utilising different fuels in a heat engine as determined by their physical state.

Bituminous coal is the most widely distributed and most extensively sold of all fuels, and through its combustion under steam boilers the vast majority of the world's work has been accomplished.

It may be assumed that a cubic foot of average bituminous coal will weigh heaped not more than 50 lb., or, to be more exact, there will not be more than 50 lb. of combustible matter in a heaped cubic foot of average bituminous coal, such as is taken from all the mines of all the countries, and which may be purchased by the shipowner in the different ports of the world. This 50 lb. or one cubic foot will at the most contain pent-up energy to the extent of 650,000 British thermal units, but when burned on the grates of a Scotch marine boiler, the steam from which is utilised by a good triple-expansion or quadruple-expansion engine, it will yield but 25 brake horse-power hours, assuming the engine to be of 2,000 indicated horse-power or less, which calls for a mechanical efficiency of not more than eight-tenths.

By far the majority of shipowners and ship managers talked with on this subject report at least 2 lb. of coal per i.h.p. hour at sea. However, we have taken 1·6 lb. of coal per i.h.p. hour to give this kind of fuel the benefit of results only obtainable with good, careful firing and boilers and engines kept in first-class condition.

Let us take now the case of a freight-carrying ship having good modern engines and boilers, well kept up and well served, the speed to be nine knots per hour, the shaft horse-power to be 1,500, the daily consumption of fuel 32 tons, the voyage to last sixteen days, and the value of a ton freight money for the trip to be $5.50. Such a ship would be about 400 ft long by about 51 ft. beam, would draw about 26 ft. and might have a cargo-carrying capacity of 8,000 to 9,000 tons. Sixteen days' steaming with a coal consumption of 32 tons per day would come to 512 tons, which at $5.50 per ton comes to $2,816.00. But the coal bunkers would have to carry 600 tons of coal to provide against head winds and tempestuous weather. Six hundred tons at $5.50 per ton comes to $3,300.00 cost of carrying her own fuel. If she can make eight double trips a year she has spent $52,800.00 that year in transporting fuel. The assumption here made is that she can always sail loaded with all the cargo she can carry.

The boiler-room for such a ship would be at least 40 ft. long, and including the coal-bunkers would take up the whole width of the ship. She might have four single-end Scotch boilers, set back to back in pairs with twelve 42-in. furnaces and two 8-ft. fire-rooms. With two men trimming and passing coal in the two bunkers, while two firemen in each fire-room shovel in the coal, break up the clinkers and clean the fires for the twelve furnaces, with one water tender for all four boilers, seven men are required per watch of four hours, which makes a fire-room force of twenty-one men. The wages and feeding of these twenty-one men at $50.00 per month will come to $1,050.00, which for the year is $12,600.00. This latter expense item must be added to the freight money for carrying the coal, and the whole totals $65,400.00.

On some trips the cargo carried may be very heavy and amount of room below decks may not be very important, while on other trips the cargo may be very light and available space may be everything. For the sake of argument, we will take 35 cubic ft. as representing a ton of freight where the cargo is too light to be measured by its dead-weight. The coal bunkers must measure 27,000 cubic ft. capacity and that space must all be above the fire-room floor, so that it comes out of space that might otherwise be cargo space. Dividing 27,000 by 35 we nearly get 770. That is 770 tons of freight room used up per trip by the fuel needed to carry the ship to her port. At $5.50 per ton of 35 cubic ft. that would come to $4,235.00, and for the year of eight double trips to $67,760.00. This rate is probably too high for any but high-grade merchandise, but the value of this space for eight double trips per year might easily be $52,800.00 when the cargo is light. This sum must be added to the fire-room expenses to determine the cost of running such a ship by steam engines whose boilers are fed with bituminous coal. $12,600.00 plus $52,800.00 equals $65,400.00.

No other kind of solid fuel is a serious contender with bituminous coal for oceanic trade in any part of the world, nor is gas of any kind, although gas-producer plants have been tentatively tried out on small vessels making short coastwise voyages, and producer-gas engine installations are capable of showing excellent operative economies.

We come now to the part that liquid fuel is bound to play in ocean-going trade and will compare it with bituminous coal in an attempt to fix their comparative value to the shipowner. We will assume a specific gravity for fuel oil of nine-tenths, which is nearly 26° Beaumé. A cubic foot of this oil will weigh 56 lb. and contain 1,008,000 B. T. Us. Very extensive tests have shown that such oil, burned in the furnaces of Scotch boilers with good burners and clean tubes, if handled with care, will give as low as $1\frac{1}{10}$ lb. of oil per i.h.p. hour in engines of the size we are discussing. That means $1\frac{3}{8}$ lb. per shaft h.p. hour. Therefore 40 shaft h.p. can be obtained from a cubic foot of this fuel as against but 25 shaft h.p. when using bituminous coal, as before mentioned, with the same engines and boilers. Also 22 tons of fuel oil does the work of 32 tons of bituminous coal. We have saved the coal bunker space, because the oil can be carried in the double bottom tanks.

In the fire-room we need no coal trimmers and but two firemen and a water-tender to a watch, or three men against seven, and nine firemen in the crew instead of twenty-one. The money expense in wages and food is $450.00 per month as against $1,050.00, and for the year $5,400.00 instead of $12,600.00. Instead of carrying 600 tons of coal each voyage, the ship will now only be obliged to carry 415 tons of oil.

Accordingly the case of the oil-burning steamship, in comparison with the coal-burning ship of the same size, may be stated as follows: Annual freight saving $52,800.00 when carrying light, bulky cargoes, and when carrying heavy cargoes with rates based on dead weight the annual saving would be 185 × 16 × $5.50 = $16,280.00. The fire-room saving would be $7,200.00 per annum for the oil-burning ship over the coal-burning ship. So the total saving in extra freight-earning and reduced fire-room force for this particular ship on this particular route will be $23,480.00 or $60,000.00, according as the cargoes carried are heavy or bulky. Eight double trips or sixteen days' steaming per trip makes 256 days' steaming in the year: 256 days' steaming at 32 tons per day comes to 8,192 tons per year. If this coal costs in the bunkers $4.00 per ton, the coal-burning ship will yearly consume $31,768.00 worth of coal.

Now let us see just how much the shipowner can afford to pay for oil under the above conditions: 256 days of yearly steaming at 22 tons per day equal 5,632 tons of oil to be burnt annually; $32,768.00+$23,480.00 =$56,248.00, and $32,768.00+$60,000.00=$92,768.00. Divide both through by 5,632, and we get the price per ton we can afford to pay for oil to make its use on shipboard as cheap as coal at $4.00 per ton. We get approximately $10.00 in one case and $16.50 in the other. As there are about 300 gallons of this oil to a ton, it is thus demonstrated that the shipowner can afford to pay about $3\frac{1}{3}$ cents a gallon for fuel oil in a trade where dead-weight cargoes are the rule, and nearly $5\frac{1}{2}$ cents a gallon where rates are based on tons of 35 cubic ft. These figures are only accurate on the assumption that this particular ship will always have all the cargo she can carry.

We come at last to the Diesel-engined motor ship. Here the savings possible over the coal-burning steamship are most pronounced. Less than seven tons per day are needed to develop 1,500 b.h.p., so that the weight of fuel consumed per 24 hours in three types of ships, all of about 12,000 tons displacement, is: seven tons of oil in the Diesel-engined motor ship, 22 tons of oil in the oil-burning steamship, and 32 tons of bituminous coal in the coal-burning steamship; 130 tons of oil carried in the ship's double bottom will yield as much margin for head winds as 415 tons of oil in an oil-burning ship, or 600 tons of coal in a coal-burning ship. So here the freight-money saving is for each single trip $2,585.00, for each double trip $5,170.00, and $41,360.00 for the year's voyaging of eight double trips. The fire-room force is all saved, and that amounts to $12.600.00. Two hundred and fifty-six days of voyaging at seven tons per day amounts to 1,792 tons of oil per annum. Where dead-weight rates are the rule we get $41,360.00 × $12,600.00=$53,960.00. Also there might easily be a saving of 200 tons in the machinery weights, because of dispensing with the boilers and their accessories as well as the water contained in the boilers. This 200 tons for eight double trips per annum at $5.50 per ton comes to $17,600.00. This altogether amounts to $71,560.00. Add this to cost of bituminous coal consumed for one year, and we get $104,328.00. Divide this by 1,792, and we get over $58.00 per ton where dead-weight rates are the rule. The total length of engine compartment and boiler compartment combined is in the case of the steamship 66 ft. Ten feet of this can easily be saved, and we have additional cargo room of 10′ × 48′ 6″ × 30′=14,500 cubic ft., or 415 tons at 35 cubic ft. to the ton, worth in freight money $2,282.50 for each trip where light, bulky cargoes rule. For eight double trips per year this comes to $36,520.00. Add now $52,800.00+$12,600.00+$36,520.00, and we get $101,920.00. This, added to $32,768.00, equals $134,680.00. Divide this by 1,792, and we get over $75.00 a ton as the price that oil might sell at and still be no more costly than bituminous coal at $4.00 per ton burned in the furnaces of good Scotch boilers. The foregoing facts prove that fuel oil must ultimately supplant coal for ships' work and that oil-burning boilers must give way to Diesel engines.

There are other assumptions necessarily involved in the above. In order that these foregoing figures may be considered fairly accurate it is necessary to assume that the motor ship and the steamship cost the same price and that their upkeep cost is the same. All experience so far has gone to prove that the marine Diesel engine is simpler and has fewer parts to get out of order than the marine steam engine. The elimination of large boiler installations is a distinct gain in the matter of deterioration.

Even though the cost of motor ships has been higher than the cost of steamships in the past, there is no real reason why the motor ship should not ultimately be built and fully equipped for nearly the same price per ton as a high-grade quadruple-expansion engined steamship provided the size is at least 10,000 tons.

Heretofore all calculations intended to show the relative economy of motor ships compared with steamships have left out one of the most important factors in neglecting to compare the earning capacities of the two types of vessels based upon their relative freight-carrying capacity. The foregoing figures show that even if good bituminous coal were placed in the bunkers of a strictly first-class freight-carrying steamship of about 12,000 tons displacement, at a cost not greater than $4.00 per ton, still a motor ship of the same size might easily earn enough in additional freight and save enough in the fire-room expenses to permit her to operate at no greater cost than the above-cited steamship even when her Diesel engines were supplied with liquid fuel oil of 26° Beaumé, costing as high as $75.00 a ton, which is equivalent to 25 cents a gallon.

◆

**Astrakhan Petroleum Movements.**—During the last navigation there was entered into Astrakhan 230,300,000 poods of crude oil and residuals, as against 229,000,000 poods entered during the preceding navigation season, thus showing an increase of 1,300,000 poods. The exports from Astrakhan by the Volga during the same period amounted to 216,200,000 poods, as against 215,800,000 poods exported during the preceding navigation. The total reserves in crude oil and fuel in the principal ports on the Volga at the close of the navigation amounted to 90,394,000 poods.

## THE ROYAL DUTCH-SHELL COMBINE.

### Details of Crude Oil Production during 1913.

The Amsterdam *Telegraaf* publishes the following figures of crude oil production during 1913 on the properties owned or controlled by the Royal Dutch-Shell combine, and which may be taken as semi-official:—

| | Tons. | Tons. |
|---|---|---|
| Dutch East India (including the Dordtsche Petroleum Company)... ... ... ... | 1,503,579 | |
| Sarawak ... ... ... ... ... ... ... | 30,562 | |
| Ceram ... ... ... ... ... ... ... | 82 | |
| | | 1,534,223 |
| Egypt ... ... ... ... ... ... ... | | 12,618 |
| Russia— | | |
| Buito ... ... ... ... ... ... | 540,162 | |
| Schibaieff ... ... ... ... ... ... | 88,613 | |
| North Caucasian .. ... ... ... | 154,896 | |
| Grosny-Sundja ... ... ... ... | 5,944 | |
| Ural-Caspian ... ... ... ... | 73,516 | |
| Standard Russe ... ... ... ... | 169,400 | |
| | | 1,032,531 |
| America— | | |
| Oklahoma ... ... ... ... ... | 136,852 | |
| California Oilfields... ... ... ... | 573,850 | |
| La Corona (Mexico) ... ... ... | 9,487 | |
| | | 720,189 |
| Roumania— | | |
| Astra-Romana and Geconsolideerde Hollandsche Petroleum Company ... ... | 613,425 | |
| Already taken into consideration in Standard Russe's figures ... .. | 169,400 | |
| | | 444,025 |
| Grand total for 1913 ... ... | | 3,743,586 |

In connection with the above details of output, it should be mentioned that in the case of the Ceram properties active operations were only commenced late in the year, while in the case of the properties held by La Corona in Mexico it will be remembered that since the new year a remarkably prolific gusher has been struck on these lands, which now yields nearly 20,000 barrels of crude oil daily.

## RIVAL OIL-BURNING SYSTEMS.

Before the Solicitor-General, on Saturday week, a case was heard, being an appeal against the decision of the Comptroller of the Patents Office, brought by Mr. Andrew Laing, arising out of an objection lodged against the granting of a patent applied for by Mr. Launcelot E. Smith, managing director of Smith's Dock Company, Ltd., and Mr. R. A. Meyer, of Holland, for improvements in the well-known Meyer's Patents No. 1962 of 1899 and No. 10326 of 1906.

These patents were granted for special types of furnace fronts, for use in connection with the burning of liquid fuels, one of the main features being the helical vanes inserted between the outer and inner barrels, in such a manner that the air was heated and given a gyratory or swirling motion. This novel principle ensured the complete mixing of the oil spray and the air supply, with the result that a very high efficiency was obtained.

In 1909 Mr. Andrew Laing, of the Wallsend Slipway and Engineering Company, brought out a patent furnace front, which, amongst other features, embodied the above-mentioned principle of the helical vanes and heating passages as fitted in Meyer's fronts, and upon the application in 1912 of Mr. Launcelot E. Smith and Mr. R. A. Meyer for an improved front, which, however, still retained the vanes and heating passages Mr. Andrew Laing lodged an objection against the granting of this application for a patent.

This objection was heard in due course before the Comptroller, who over-ruled the objection, and gave his award in favour of Messrs. Launcelot E. Smith and R. A. Meyer, subject to an appeal to the law officer.

Mr. Andrew Laing, having entered an appeal against the Comptroller's decision, this was heard on Saturday last before the Solicitor-General, Sir Stanley Buckmaster, and after arguments by counsel on both sides, the appeal was dismissed with costs, and the patent will therefore be granted and sealed in due course.

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# Dr. Edeleanu's Method of Refining Petroleum.

THE following is a short resumé of a conference which recently took place in Paris on Dr. Edeleanu's processes of refining petroleum by means of liquid sulphur dioxide. The ordinary processes of refining petroleum consist, as is well known, of alternate treatments of the oil by means of concentrated sulphuric acid and solutions of caustic soda, which treatment has the purpose of combining with the sulphuric acid in the form of a goudron almost without any value all the hydrocarbons which are rich in petroleum and for the most part non-saturated, and of which during the distillation a certain proportion is carried over together with the kerosene distillate. This proceeding cannot be applied to all those numerous very viscous petroleums, which have been discovered during the last few years.

The proportion of non-illuminating products being very large in those oils, it becomes necessary, in order to free the kerosene distillate from these, to use a very large quantity of concentrated and even fuming sulphuric acid, and, moreover, to operate at a high temperature. The proceeding is naturally very costly and results in the yield of too small a percentage of illuminating oil, as a considerable part of this latter has been decomposed by the treatment itself.

The process of Dr. Edeleanu consists of treating the crude distillate by liquid sulphurous anhydride instead of by concentrated sulphuric acid. The former dissolves all the non-illuminating products without modifying them, and they can then be recovered by a subsequent simple evaporation. As regards the illuminating fraction, this is saturated with the sulphurous anhydride and the two can be easily separated one from another in such a way that almost the whole of the dissolvant is recuperated, the total loss of the dissolvant amounting to a maximum of ½ per cent. The illuminating product after refining has to be washed with water, while the extract submitted to a fractional distillation supplies a series of valuable products. The proceeding is very economical, as it involves such a small loss of materials.

The operation is carried out at a temperature of 10°, which is close to the boiling point of the sulphurous anhydride.

The process has been made industrial by the German Company for Chemical Industry of Berlin, and at present there are two refineries in Europe, which are applying Edeleanu's process, viz., one at Rouen, owned by the Compagnie Industrielle des Petroles de Paris, and the other at Ploesti—the Vega refinery. The capacity of this latter refinery is 65 tons of distillate in a day of 10 hours, at the price of 8 frs. per ton. The price of the installation is £10,000, and three hands are quite sufficient to secure a good and regular service in the refinery.

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## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/3–12/3 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1–$1\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 7/0-8/0 |
| European Oilfields ... ... | 319,181 | 10/- | 5/9-6/3 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 30/0-31/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 33/3-33/9 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | $\frac{1}{8}$-$\frac{3}{8}$ |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 20/6-21/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}$-$\frac{5}{16}$ |
| " " Ord... | 690,000 | fully pd. | 14/9-15/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{4}$-$5\frac{5}{16}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 708 | 710 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,185 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,600 | 19,700 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,015 | 1,018 |
| Russian Naphtha Society ... ... | 100 | 271 | 273 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 248 | 250 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 36/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 85/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 43/9 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 36/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 21/6 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/6 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{1}{2}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 10/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 71/6 |
| " "B" Deb. ... | 160,000 | £100 | £$151\frac{1}{2}$ |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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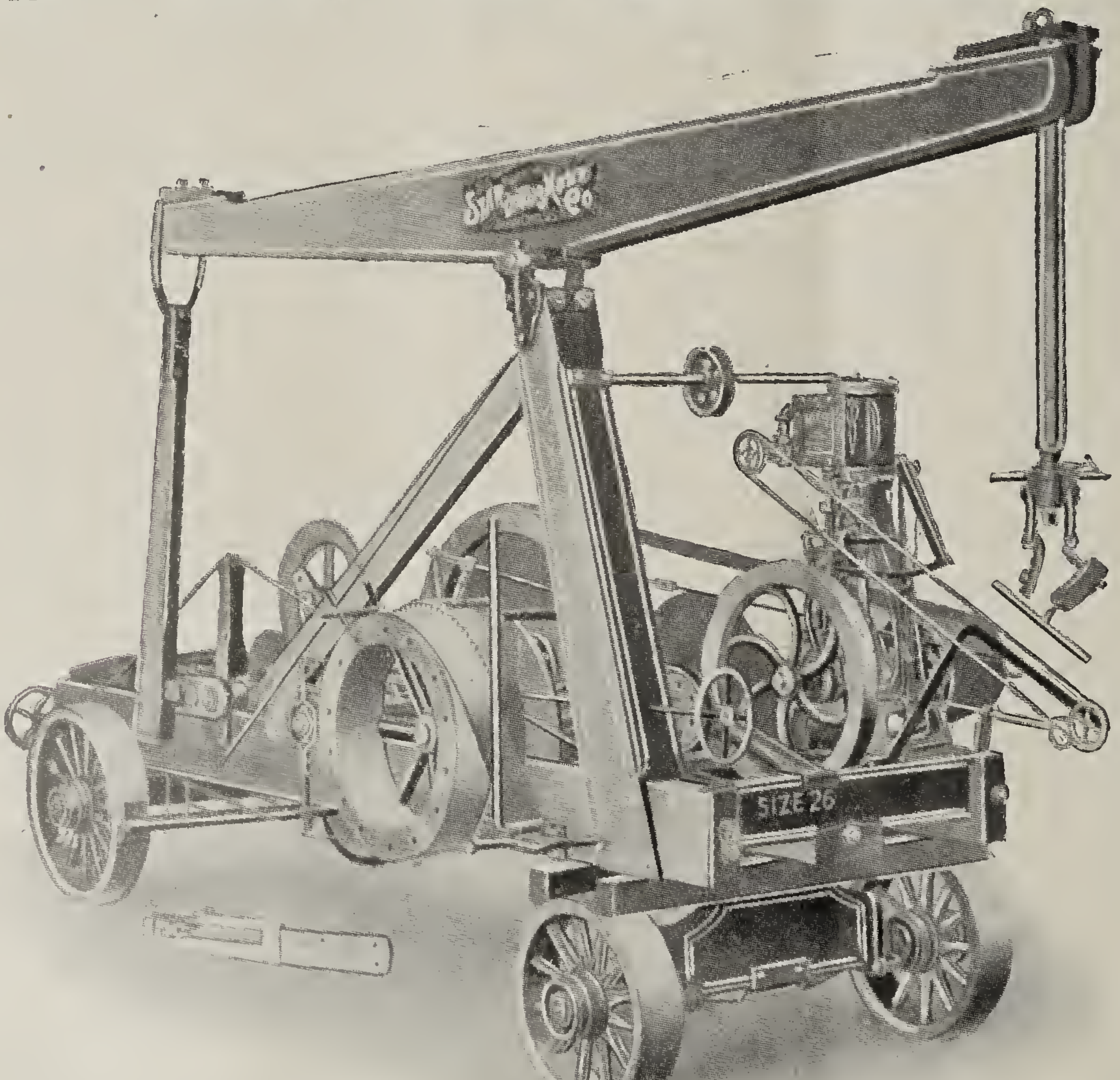

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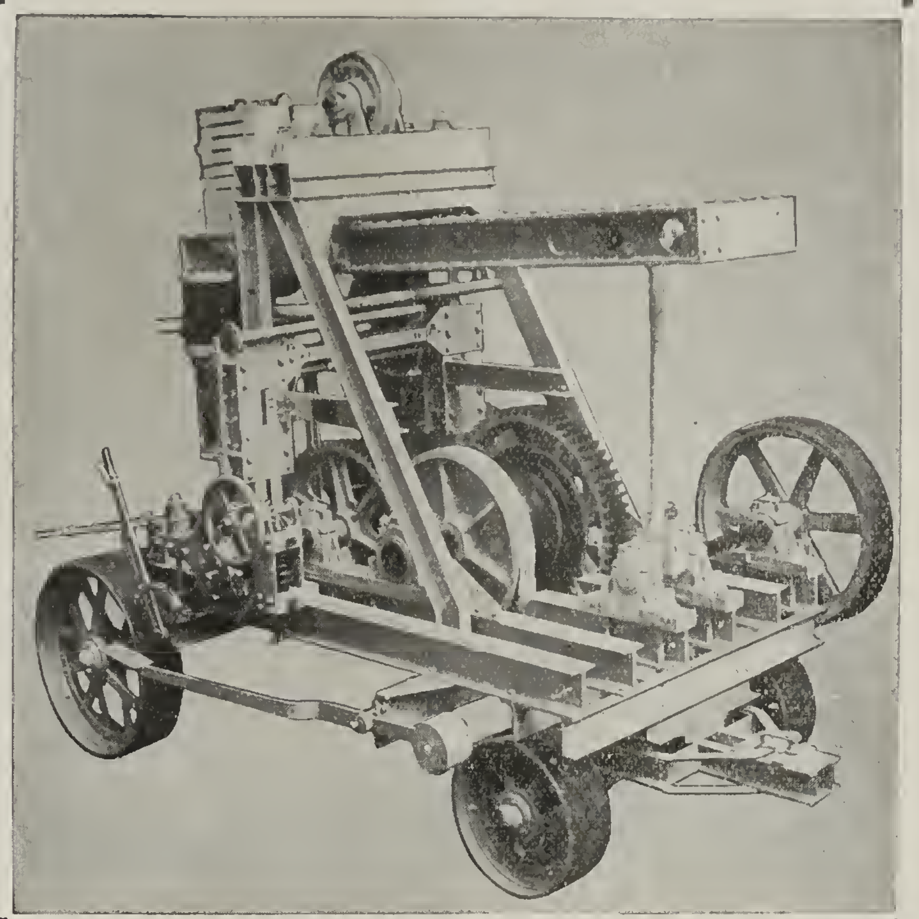

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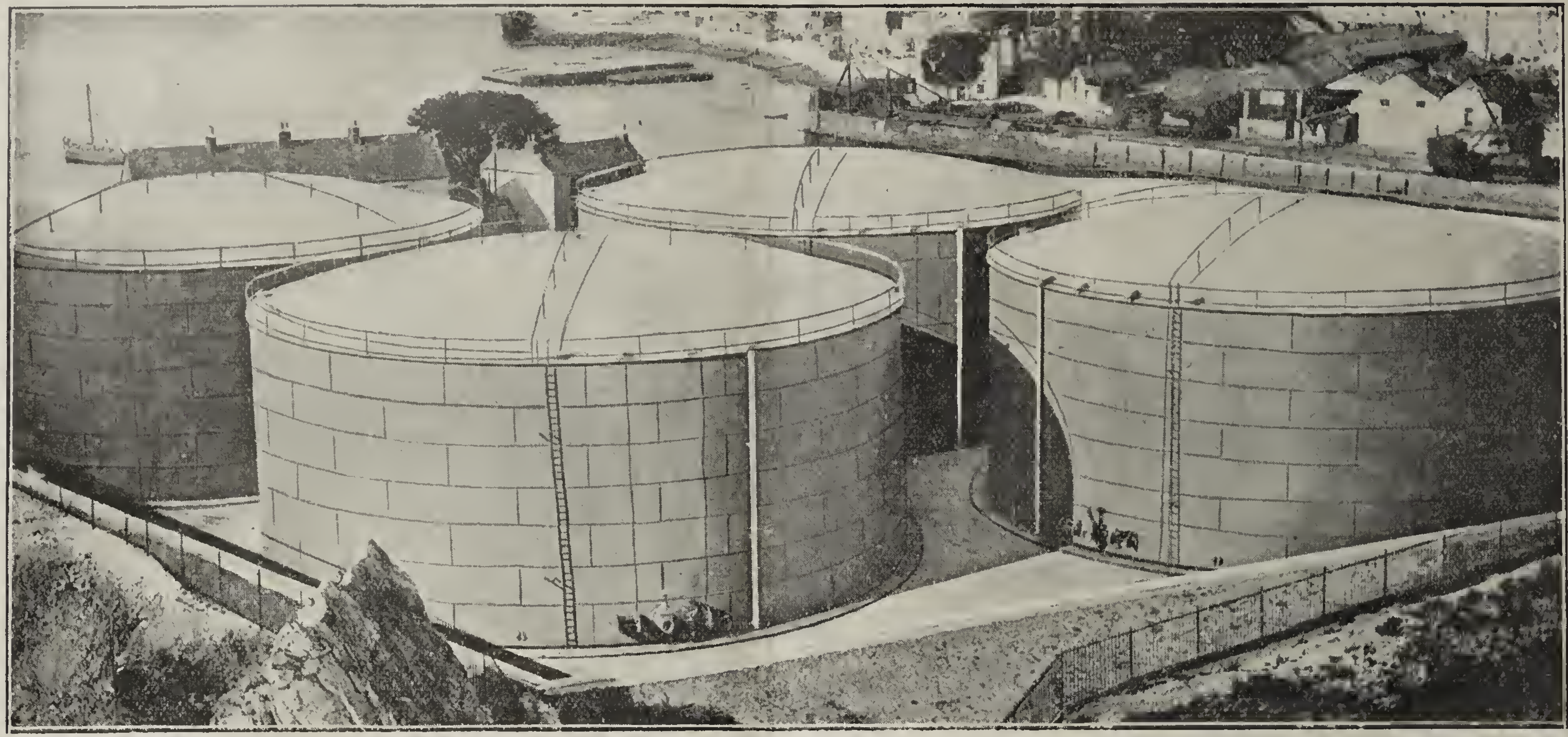

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
**American Office: 111, Broadway, New York.**

SATURDAY, FEBRUARY 7TH, 1914.

## THE RUSSIAN PETROLEUM INDUSTRY DURING 1913.

The detailed review of the Russian petroleum industry during the past twelve months, which will be found upon another page of the present issue, gives a clear idea not only of the output of crude oil in the Russian Empire for that period, but provides ample food for thought as to the oil outlook in that country.

In round figures the total yield may be taken at 9,100,000 tons, or a decline of nearly 7 per cent. from the figures for the preceding twelve months. The output for 1912 will be recollected to have been substantially below that of any of the several previous years, and thus it is clear that, so far as the old producing areas in Baku are concerned, which to-day still provide the vast majority of crude oil production, a permanent decline has set in.

It must not be imagined, however, that the Baku region as a whole is approaching those days when the production of crude oil will have dropped to a negligible quantity, for we are confident in the belief that the four principal areas which constitute the Baku fields still contain a wonderful amount of mineral wealth which only awaits serious exploitation. The fact remains, however, that the major portion of this belongs to a Government, which has consistently hampered its home oil industry, and in spite of the continued entreaties of the producers, the Government officials have as yet not shown any great desire to throw open these new territories to energetic development, excepting under restrictions which do not in the slightest conform with commercial practice. The results of last year's auctions prove to what an extent the Russian Government either wilfully refuses to see matters in a common-sense light, or is determined to do its utmost to demoralise Baku's oil industry.

The Grosny fields last year passed through a period of exceptional activity, their total output being over 8 per cent. above that of 1912, and it is safe to say that had not operations been to some extent curtailed upon various properties, owing to the inundations of several wells with water—a menace now happily overcome—last year's output might easily have made good the deficit in the Baku areas. The Grosny field has recently materially extended its producing limits owing to the bringing in of several wells upon land in the north-west portion, and it is safe to assume that if the industry is unmolested by labour troubles the present year's output will stand as a record.

But it is to the Urals that we look for remarkable developments during the present year. Following upon the carrying out of serious development operations by several important companies in which English capital is very largely interested, the industry has already assumed a very important character. Unlike Maikop the region of the Urals has not so far excited the interest of pessimistic critics. The consequence has been that nothing untoward has occurred to prevent the active progress of development work, and the result of this favourable state of affairs we see in the great increase in the output of crude oil, which during the past twelve months has amounted to nearly 8,000,000 poods—a figure which is several times as great as the total production for the preceding year.

As to the Maikop field the decrease of over 50 per cent. in the production may be viewed with some alarm by those who have looked to the Kuban province as a centre whose output of crude oil would go far to make good the decline in the Baku fields. It must not be forgotten, however, that the past year has been one during which there have been but few developments carried on by the numerous companies holding properties therein. This is, of course, a great pity, for we have always contended that if Maikop is given an opportunity of proving her stores of oil wealth, the region will not be found to be wanting. The Micawber-like policy adopted by the great majority of Maikop companies in regard to developing their holdings is not one which can be admired. But there seems to have been a wave of lethargy which has swept over our Anglo-Maikop concerns in this respect, for, having at one time held faith in Maikop and accordingly acquired properties, the management sit on the fence in the hope that someone else, by developing plots in close proximity, may prove theirs also. The policy, however, does not commend itself to oil men, nor is it good for the industry as a whole.

The fact remains that of the few serious developments in Maikop during the past twelve months, several of these have resulted in not only the bringing in of additional wells, but in proving significant extensions of the field.

Taking the Russian Empire as a whole, the results of the past year's operations in the oil industry are undoubtedly gratifying, for though the total output has somewhat declined, producers have had the distinct advantage of a splendid run of highly remunerative prices, which in other circumstances might have not held up to anything like the level at which they have consistently stood during 1913.

◆

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## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO FEBRUARY 2nd, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. | Since Jan. 26. | From Jan. 1. |
| **Belgium** .. | — | — | 10.540 | 58,430 | — | — | — | — | 5,600 | 27,520 | — | — | — | — | 16,140 | 85,9 |
| **Canada** .. | — | — | 4,000 | 4,400 | — | 2.600 | — | — | — | — | — | — | — | — | 4,000 | 7,0 |
| **Dutch Indies** | — | — | — | — | — | — | — | — | — | 5,978,000 | — | — | — | — | — | 5.978,0 |
| **Germany** .. | 8,720 | 8,720 | 365.220 | 457,630 | — | — | — | — | — | — | — | — | — | — | 373,940 | 466.3 |
| **Holland** .. | — | — | — | 2,410 | — | — | — | 55,000 | 50,000 | 869,000 | — | — | — | 590 | 50,000 | 927, |
| **Mexico** .. | 456,680 | 1,338,680 | — | — | — | — | — | — | 754,170 | 754,170 | — | 733.800 | — | — | 1,210,850 | 2,826,6 |
| **Roumania** .. | 1,490,560 | 1,703,500 | — | — | — | — | — | — | — | 771.340 | — | 1,207,910 | — | — | 1,490.560 | 3.682, |
| **Russia** .. | — | — | 624,660 | 625,460 | — | — | — | — | — | 1,907,310 | — | — | — | — | 624,660 | 2,532.7 |
| **U.S.A.** .. | 445,000 | 12,001,050 | 1,956,710 | 5,075,430 | — | 5,280 | 2,909,060 | 12,190,220 | — | — | 2,000 | 683,730 | 16,520 | 56,840 | 5,329,290 | 30,012.5 |
| **Other Countries** | — | — | 12,230 | 20,470 | — | — | — | — | — | — | 1,030 | 1,030 | — | — | 13,260 | 21.5 |
| | 2,400,960 | 15,051.950 | 2,973,360 | 6,244,230 | — | 7,880 | 2,909,060 | 12,245,220 | 809,770 | 10,307,340 | 3,030 | 2,626,470 | 16,520 | 57,430 | 9,112,700 | 46,540, |

# RUSSIAN AND ROUMANIAN NOTES.

## RUSSIAN.

**A Competitor of Nobel Bros.**—News has arrived from Omsk, Siberia, that the Volga Company has energetically developed its sales of petroleum products, and now successfully competes with Nobel Bros.

**Future Prices of Crude Oil.**—In order to open the Moscow central area for the liquid fuel market, it is calculated that prices at Baku during 1914–15 should not exceed 38–40 copecs per pood, which means 58–60 copecs per pood at Moscow.

**Tax on Petroleum in Kind.**—During 1914 the tax on petroleum in kind is expected to bring the Ministry of Ways of Communication 27,000,000 poods, and the Navy 12,500,000 poods, out of which 6,000,000 poods will be taken by the former.

**New Petroleum Company.**—A new petroleum company, under the name of Egor Petroleum Company, has been formed for the purpose of the exploitation of petroliferous deposits on the Caucasus, with a capital of 7,500.000 roubles.

**Kuban Province.**—The administration of the Kuban province has addressed the military authorities with a demand for the authorisation of granting the Kuban petroleum producers the privilege of securing their leases without depositing money, as this simply means crippling their working capacity.

**Liquid Fuel for Northern Railways.**—The Northern Railways have acquired 1,300,000 poods of liquid fuel to be delivered between February and April this year, and another 320,000 poods to be delivered during the year. The fuel has been acquired at the price of 61 copecs per pood delivered Moscow and Yaroslav.

**New Petroliferous Deposits in Ferghana.**—The Ministry of Trade and Industry has received a communication of the discovery of exceedingly rich petroliferous deposits in the locality of Sel-Rekhe, in the Kokand district of the Ferghana province. The deposits are situated near the station of Melnikovo and the Central Asiatic Railway.

**A Bibi-Eibat Spouter.**—On January 4th at mid-day, on plot 57 of the Bibi-Eibat area, in well No. 220, of a depth of 2,954 ft., owned by Messrs. Mantascheff & Co., a spouter broke out of great force, which has been unprecedented of late years. The spouting ceased on January 9th at midnight, the well having during this time yielded over 2,000,000 poods of oil.

**Boring at Stavropoleos.**—At Stavropoleos there is being concluded the boring of a deep well, which is intended for exploration of petroleum in the locality. The present depth is 2,044 ft., and the final depth will be 2,100 ft. So far no indications of bituminous matter or gas have been found, but still it is desirable to bring the well down to the foraminiferous strata from which they produce oil on the Maikop fields.

**G. M. Lianosoff & Sons' Society.**—In contradiction of rumours that the activity of this Society is not normal, and that the profits recorded are exaggerated, it is interesting to quote the official figures :—The net profits of the Society for 1910 amounted to 1,504,305.36 roubles, or to about 10 per cent. of the gross income, which was equal to 5,067,609.34 roubles. During 1911 the net profits amounted to 1,097,110.7 roubles, out of a gross income of 9,774,245.58 roubles, which means 11 per cent., or by 1 per cent. more than during the preceding year. During 1912, with a gross income of 15,756,511.25 roubles, the net profits amounted to 2,512,982.88 roubles, or 16 per cent., that is to say, by 5 per cent. more than during the preceding year.

**Report on the Petroleum Industry.**—On December 29th last Mr. M. J. Lazareff made a report to the Committee of the Siezds of Trade and Industry on the situation of the petroleum industry during 1913. He stated that on the old Baku areas there is observed a decrease in the production, while on the other areas of Baku, such as Surakhany and Binagadi, etc., there is a noticeable increase in the yield, which compensates for the decrease on the old areas, so that the total production on the Baku area practically remains stationary. As regards other areas, on some of them, such as Grosny, Emba, etc., the production has increased, while on other areas, such as Maikop, Tchelekcn, etc., the production has decreased. A considerable increase in the production on the Grosny areas is expected during the present year.

## ROUMANIAN.

**Orion.**—Well No. 38 at Tzintea has reached a petroliferous stratum. An abundant production is shortly expected.

**The Romana-Americana.**—Well No. 8P of the Romana-Americana at Moreni continues to yield from 250 to 300 tons a day.

**The Steaua-Romana.**—The average daily production of this company during the past week amounted to 1,046 tons, of which 439 tons were produced at Campina, and 327 tons at Policiori.

**Prices.**—The prices of crude oil are unchanged. Very little crude oil is on the market, while the demands are very large. Prices of products on the interior market are also unchanged.

**The Astra-Romana.**—The production of this company now averages 985 tons a day, of which 767 tons are obtained at Stavropoleos, 118 tons at Bana, 43 tons at Campina, 53 tons at Filipeshti, and the remainder at Baicoi and Glodeni.

**Production of the Romana-Americana.**—The production of this company is maintained at 1,100 tons a day, of which 1,050 tons are obtained at Moreni and the remainder at Baicoi, Bustenari and Tetzcani.

**Export.**—The export movement during the past week has considerably suffered owing to the stoppage of trains by snow storms on the line to Constanza, and the transports, which were pretty bad before this natural hindrance, are now more difficult than ever.

**Société Francaise des Petroles de Bordeni.**—This company, which has been formed by the "Consortium du Nord," with a capital of 1,850,000 frs., based on 3,700 shares of 500 frs. each, has acquired various fields at Bordeni and intends to operate there on a large scale.

**General Production.**—The production has been weaker during last week, as large quantities of snow and violent frosts have considerably hindered boring works and transport. The production has also been considerably hindered owing to the defective supply of electricity caused by avalanches of snow. A considerable increase in the production is shortly expected as numerous wells will soon strike oil.

**Petrolul.**—The production of this company is maintained at 117 tons a day, obtained from three wells at Campina. A new well has been started in the same locality and another well at Gropi. A third well is shortly going to be started at Telega. The well, which the company possesses at Bana has struck oil, and everything is now in preparation for capping same. There is every indication that the well will be an eruptive one and give a good yield.

**Nafta.**—The production of this company is at present 100 tons a day. Well No. 9 Arbanash has struck the second stratum of oil. Well No. 6 in the same locality is being deepened to the second stratum. At present the company has twelve wells in production. Two more wells have been started in boring. The total production of this company during the last year amounted to 23,068 tons, as against 14,411 tons obtained during the preceding year, thus showing a considerable increase of 8,657 tons, or about 60 per cent. The average daily production during the year has increased from 49 to 63 tons. The gross profits of the company during the year amounted to about 1,000,000 frs., as against 225,000 frs. received during the preceding year.

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# Mr. W. H. MacGarvey's Seventieth Birthday Celebration.

We are indebted to Mr. George W. Mancell, the sole agent in Great Britain and the Colonies for the well-known Galizische-Karpathen Petroleum A. G., for the above reproduction of the photograph taken at midnight at the Hotel Metropole, Vienna. It is an interesting souvenir of a memorable occasion, when the chief officials, managers, headoffice staff, and representatives of the Galizische-Karpathen Petroleum Actien Gesellschaft, together with many personal friends of Mr. W. H. MacGarvey, met to celebrate the seventieth birthday of that gentleman, who, together with his good lady, is seen in the centre of the front row.

◆

## THE OUTPUT OF ROUMANIAN REFINERIES.

### Statistics for November.

During November there were treated in the Roumanian refineries 171,076 tons of crude oil, from which 167,754 tons of products were obtained. The following table shows the details of the deliveries for inner consumption and stocks :—

| | Produced in the Refineries. Tons. | Delivered for Inner Consumption. Tons. | Used for fuel in the Refineries. Tons. | In Store on Dec. 1st. Tons. |
|---|---|---|---|---|
| Benzine ... | 39,418 | 2,863 | — | 75,623 |
| Kerosene ... | 33,017 | 7,533 | — | 147,549 |
| Lubricating oil | 5,056 | 3,428 | 24 | 22,488 |
| Residuals ... | 90,263 | 45,884 | 11,630 | 78,902 |
| Totals ... | 167,754 | 59,708 | 11,654 | 324,562 |

Of paraffin there were delivered for inner consumption 189 tons, and left in store 75 tons.

## ROUMANIAN PRODUCTION DURING 1913.

The *Moniteur des Pétroles Roumain* publishes preliminary figures of the country's output of crude oil during 1913. The total given is 1,886,500 tons, as compared with 1,804,761 tons in 1912, or an increase of 81,765 tons.

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## DETAILS OF BAKU PRODUCTION DURING OCTOBER.

The following are the details of the production of crude oil at the Baku oilfields during October, as published in the latest issue of the *Neftannoie Dielo* :—

| | Number of Wells in exploitation. | Production (in poods). | | | | Average per Well per Day. |
|---|---|---|---|---|---|---|
| | | By Baling. | By Spouters. | Casual. | Total. | |
| Balakhany ... | 951 | 5,745,094 | — | 255,145 | 5,230,239 | 198 |
| Saboontchi ... | 1,277 | 14,143,501 | — | 143,906 | 14,287,407 | 375 |
| Ramany ... | 295 | 5,430,630 | — | 67,887 | 5,498,517 | 623 |
| Bibi-Eybat ... | 335 | 7,504,107 | 322,367 | 8,325 | 7,834,799 | 789 |
| Total ... | 2,858 | 32,553,332 | 322,367 | 475,263 | 33,350,962 | 391 |
| Total for October, 1912 ... | 2,542 | 33,256,094 | 942,468 | 360,832 | 34,559,394 | 457 |

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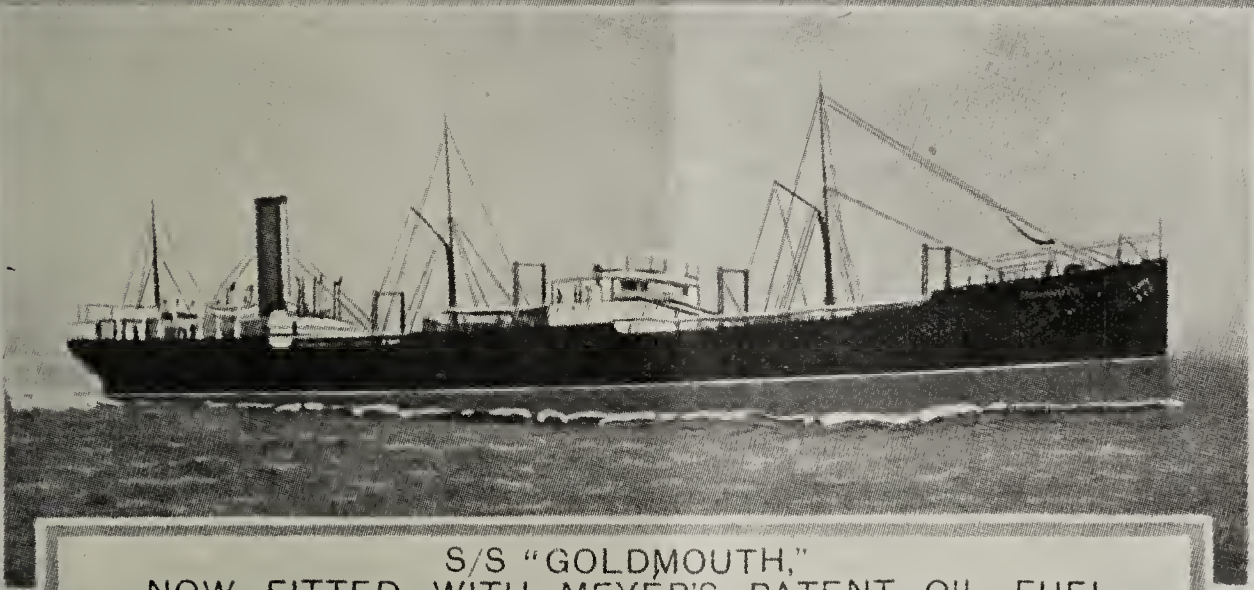

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An arrangement is also provided with each installation whereby steam can be raised on either the main or donkey boilers with oil instead of first having to fit up one boiler to burn coal. A large number of vessels have already been fitted up by us with MEYER'S Original Patent System, and a number have been fitted with the latest MEYER-SMITH Installation. We are also fitting up a number at the present time with the latest MEYER-SMITH Installation suitable for both forced and natural draught systems.

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1. Considerable reduction in initial cost of Installation.
2. Reduction in weight of installation combined with greater strength of all parts exposed to oil and steam pressure.
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# PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING JANUARY.

## THE SHIPMENTS INTO VARIOUS PORTS.

The various shipments of petroleum products into the U.K. ports during January are given in the following table. The total imports for the month were 45,215,070 gallons, or 16,018,430 gallons more than in December.

| Port. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 3,620 | — | — | — | — | — |
| Barrow ... ... ... | — | — | — | — | 812,000 | — | — |
| Belfast ... ... ... | 1,047,000 | 2,920 | — | — | — | — | — |
| Boston ... ... ... | — | 400 | — | — | — | — | — |
| Bristol ... ... ... | 4,148,000 | 174,600 | — | 732,420 | 707,000 | 203,400 | 2,390 |
| Cardiff ... ... ... | — | 1,940 | — | — | — | — | — |
| Cork ... ... ... | — | 240 | — | — | — | — | — |
| Dublin .. ... ... | — | — | — | 807,500 | — | — | — |
| Dundee ... ... ... | — | 1,400 | — | — | — | — | — |
| Glasgow ... ... ... | — | 260,740 | — | — | — | — | — |
| Gloucester ... ... ... | — | 3,560 | — | — | — | — | — |
| Goole ... ... ... | — | 2,940 | — | — | — | — | — |
| Grangemouth ... .. | — | 8,830 | — | — | — | — | — |
| Granton ... ... ... | 1,230 | — | — | — | 434,000 | — | — |
| Grimsby ... ... ... | 212,940 | 4,060 | — | — | — | — | — |
| Harwich ... ... ... | — | 4,000 | — | — | — | — | — |
| Hull ... . . ... | 1,490,560 | 346,480 | — | — | 25,000 | — | — |
| Leith ... ... ... | 4,360 | 53,940 | — | — | — | — | — |
| Liverpool ... ... ... | 377,480 | 1,502,200 | 7,880 | 1,285,490 | 50,000 | — | 42,370 |
| London ... ... ... | 5,470,030 | 2,395,350 | — | 7,870,450 | 7,525,230 | 1,470,740 | 1,220 |
| Manchester ... ... | 1,180,220 | 1,337,490 | — | 1,028,560 | — | 478,330 | 6,250 |
| Middlesbrough ... ... | — | 800 | — | — | — | — | — |
| Newcastle ... ... ... | — | 14,850 | — | — | — | — | — |
| Plymouth ... ... ... | — | 1,060 | — | 520,800 | — | — | — |
| Portsmouth ... .. | — | 70 | — | — | — | — | — |
| Queenborough ... ... | — | — | — | — | — | 472,000 | — |
| Southampton ... ... | 672,000 | 260 | — | — | — | — | — |
| Swansea ... ... ... | — | 6,470 | — | — | — | — | — |
| Totals ... ... | 14,603,820 | 6,128,220 | 7,880 | 12,245,220 | 9,553,230 | 2,624,470 | 52,230 |

EVERYTHING TO DRILL AND EQUIP OIL, GAS, AND WATER WELLS.

DASHWOOD HOUSE, NEW BROAD STREET, LONDON, E.C.
Head Offices: PITTSBURGH.

# The Oil and Gas Prospects of the North-West Provinces of Canada.

### By Mr. WYATT MALCOLM.

(*Concluded from page* 134.)

OUR information regarding the gas field of Southern lberta is very limited. Some wells drilled at edicine Hat to depths of 700 to 1,000 ft. supply the own with light and fuel. There are also productive as wells at Dunmore Junction, Stairs, Suffield, Lanevin, Bassano, and Bow island, and in many of these t is believed that the gas veins are encountered in andstone beds in the Niobrara shales. At Medicine at the supply at the depth of 700 ft. was small, but everal wells sunk to a depth of about 1,000 ft. have rocured a good flow of gas. In the first of these deeper vells a flow of 1,500,000 cubic ft. was obtained and a rock ressure of 600 pounds. Gas has also been struck at oth of these horizons at Dunmore Junction, at the ower horizon at Stairs, and at the upper at a depth of 50 ft. at Suffield. At Langevin gas was struck at bout 1,060 and 1,155 ft., and at Cassils at a depth of 25 ft. in a brown sandstone.

The most important field is that opened in the icinity of Bow island. Mr. Eugene Coste, the presient and managing director of the Canadian Western atural Gas, Light, Heat, and Power Company, Limited, as kindly furnished the Geological Survey with a atement of the capacities of wells that have been nk in the Bow Island district by that company up February 21st, 1912 :—

| | | | |
|---|---|---|---|
| No. 1 well | ... | 10,000,000 | cubic ft. per 24 hrs. |
| ,, 2 ,, | ... | 7,000,000 | ,, ,, ,, |
| ,, 3 ,, | ... | 15,000,000 | ,, ,, ,, |
| ,, 4 ,, | ... | 29,000,000 | ,, ,, ,, |
| ,, 5 ,, | ... | 1,250,000 | ,, ,, ,, |
| ,, 6 ,, | ... | 4,200,000 | ,, ,, ,, |
| ,, 7 ,, | ... | 7,000,000 | ,, ,, ,, |
| ,, 8 ,, | ... | 12,500,000 | ,, ,, ,, |

The pressure in these wells is 800 pounds per square ch. The wells have a depth of 1,890 to 1,930 ft., and as is struck in three or four streaks in the sandstone the last 40 ft. This is believed to be the Dakota ndstone. All these wells, except No. 1, were drilled bsequent to April, 1911.

Two wells have been sunk at Calgary to a depth of 400 ft. each. Well No. 1 was sunk on the Sarcee dian reserve, twelve miles south-west of Calgary, ut no gas was struck. Well No. 2 was sunk on ol. Jas. Walker's property, East Calgary, near the Bow ver. In this well gas was struck at 670 to 700 ft., at 39 to 849 ft., at 1,440 to 1,445 ft., at 1,572 ft., and at 760 ft., and there is still a small flow. In both wells e formations passed through consisted of shales and ndstones, and coal horizons were encountered at eat depths. In well No. 1 the top of the Belly River rmation has been accepted as lying at 2,969 ft. from e surface, so that this formation was penetrated 0 ft. In well No. 2 the bottom of the Edmonton ries was struck at about 1,953 ft., and the top of the elly river at about 2,454 ft. In neither was the more omising horizon, the Dakota, reached.

Some drilling has been done at Edmonton, and one well reached a depth of approximately 1,800 ft., but a much greater depth would be necessary at this place to reach the sands that were found so productive of gas at Pelican river. There has also been some drilling at Morinville, to the north of Edmonton, and in one well a depth of at least 3,200 ft. was reached.

A small amount of natural gas is being utilised at Wetaskiwin, and newspaper reports state that gas has been struck at a depth of 235 ft. near Ranfurly, township 51, range 12, west of the fourth meridian, and at Tofield at a depth of 1,050 ft.

Prospecting has been carried on at a few other places, but as a rule no great depth has been attained, the most promising horizon has not been reached, and the operations have been unsuccessful.

For those engaged in boring operations the importance of a knowledge of the geological structure cannot be over-emphasised. If, as has been pointed out, the Dakota sandstone is the chief reservoir of gas and oil in the north-west, a knowledge of the structure is necessary for the purpose of forming some general idea of the thickness of strata that must be penetrated at any particular point in order to reach this horizon. It may be well, therefore, to recapitulate here the broader structural features of Alberta.

A very broad anticline crosses the boundary in the vicinity of the Sweet Grass hills, and runs to near the confluence of the Bow and Belly rivers. Another broad anticline crosses the boundary between Alberta and Saskatchewan at about latitude 52° and runs north-west. West of these is a broad syncline occupying a large part of Alberta. Along the anticlines and the intervening erosion valley of the South Saskatchewan is exposed the Belly River series, the lowest horizon exposed in this part of the district, with the exception of a small area of the lower dark shales. Here lies the nearest approach to the Dakota formation. This formation is overlain to the west by the Bearpaw, this farther west by the Edmonton, and the Edmonton by the Paskapoo. Thus in going west an ever-increasing thickness of sediments must be passed through in order to reach the Dakota sandstones, so that at Calgary they were not reached at a depth of 3,400 ft., although at Bow island they probably lie within 1,900 ft. of the surface. At Victoria, on the Saskatchewan river, a hole was bored to a depth of 1,840 ft. without success, and it is estimated that the Tar sands are approximately 2,100 ft. deep at this point.

There must also be taken into consideration the possibility of the eastward extension of those sediments found in great thickness in the mountains, interposed between the Devonian and Cretaceous systems. These sediments are found to decrease in volume towards the east, and their extension to any great distance in that direction is problematical. If the Devonian limestone is the source of the gas and oil, the intervention of these impervious sediments would prevent the hydrocarbons from rising into the porous Cretaceous strata and thus reaching a horizon near enough to the surface to be accessible.

A little drilling to considerable depths has been done at different points in Southern Saskatchewan and in Manitoba, and gas is reported to have been struck on section 1, township 4, range 7, west of the 2nd meridian, near Estevan. In most cases, it is probable that the Dakota sandstones were not reached. This formation, however, was penetrated by the drill on the Vermilion river, and at Morden and Deloraine, all of Manitoba. Unfortunately all three were dry wells so far as gas and oil are concerned, and in the last two the Dakota sandstones were found to yield saline water. How far westward this condition prevails throughout this formation is not known.

The chief structural features to be taken into consideration by the drillers are the south-western dip of the strata in Manitoba, and the eastern dip to the east of the broad anticline along which the Belly River formation is exposed in the western part of Saskatchewan. Very little is known about local variations in dip, which might favour the formation of reservoirs for gas or oil.

It must also be borne in mind that the sinking of one or two dry wells in any locality does not prove the absence of oil or gas in that locality. Experience has shown that the distribution of these hydrocarbons is often spotted, and dry wells are often surrounded by productive wells. This peculiarity is probably due to variation in the porosity of the oil or gas-bearing strata.

As a source of oil and ammonia by distillation the bituminous shales of the Pasquia hills may be worth investigating. Of these McInnes writes :—

The only exposures of rock in place met with on the mountain were found in gulches eroded by streams flowing down the hillslopes. They consist for the most part of soft, grey, fissile shales that contain a considerable amount of bituminous matter, enough to cause them to burn freely, with the emission of a strong odour of petroleum when heated in the camp fire. The best exposures were found in the valley of the Nabi river, where a section in ascending order, as nearly as it could be made out, gave :—

"Thirty-five to forty feet of thick-bedded, soft, grey, bituminous shale or thin-bedded sandstone, holding the remains of fishes which seem to be *Enchodus shumardi*, large bivalves, probably *Inoceramus problematicus* and *Foraminifera*. Though the first-named species range widely in the Cretaceous of Northern Manitoba, they occur most frequently perhaps in the Niobrara.

"Six inches of harder, compact, impure limestone, filled with fine shells that are probably *Ostrea congeste*.

"One hundred and twenty feet or more of soft, fissile, light grey (almost black when wet), bituminous shales holding the comminuted remains of fishes and many species of *Foraminifera*. Dr. Whiteaves, after preliminary examination, states that these fossils are clearly Cretaceous and very probably Niobrara. Mr. Wait found that these shales on ignition leave 70·17 per cent. ash. From this the hydrocarbon content can be approximately inferred, as one-half or more of the remaining percentage would consist of hygroscopic and combined water." Subsequently a sample of this shale taken at random was analysed by the Mines Branch, with the following result :—

| | |
|---|---|
| Sulphate of ammonia ... | 33·5 lbs. per ton. |
| Crude oil... ... ... | 40·05 imp. gals. per ton. |

Record of boring at Medicine Hat, furnished by W. Whyte, of the Canadian Pacific Railway, in a letter to Dr. Dawson, dated October 17th, 1898 :—

| Description of material passed through. | Colour. | Thickness of layers or beds. Feet. | Depth of bottom layers or bed of from surface. Feet. |
|---|---|---|---|
| Gravel and sand ... ... | ... | 37 ... | 37 |
| Shale ... ... ... ... | Dark ... | 129 ... | 166 |
| Sandstone ... ... ... | ,, ... | 17 ... | 183 |
| Sand shale ... ... ... | .. ... | 17 ... | 200 |
| Sandstone and shale mixed... | .. ... | 43 ... | 243 |
| Shale ... ... ... ... | ,, . | 47 ... | 290 |
| Sandstone ... ... .. | ,, ... | 28 ... | 318 |
| Sand shale ... ... ... | .. ... | 342 ... | 660 |

Struck gas and salt water at 177 ft.
Struck gas at 558, 643, and 651 ft.

The following notes regarding wells in this field are given by Heinrich Ries in the Summary Report of the Geological Survey for 1910 :—

The Medicine Hat gas field continues to yield steadily, and wells are located as far from Medicine Hat as Redcliff in one direction and Dunmore Junction (now Coleridge) in the other, but the limits of the field are not definitely known.

According to Mr. A. K Grimmer, city engineer of Medicine Hat, about eighteen wells have been drilled at this locality, of which about eight were sunk by the city. Of the latter group three had a depth of 1,000 ft., while the others varied from 300 to 650 ft. The deeper ones show a pressure of about 650 lb. per square inch.

There are three important wells from which the city is drawing its supply, located as follows :—

(1) Corner Main Street and West Allowance : 1,000 ft. deep, 4⅝-in. casing, 550 lb. capped pressure ; volume, 1,000,000 cubic ft. per 24 hours.

(2) Corner North River Street and Third Avenue : 1,000 ft. deep, 6-in. casing, 560 lb. capped pressure ; volume, 1,250,000 cubic ft. per 24 hours.

(3) On Bridge Street, known as Big Chief : 1,000 ft. deep, 6-in. casing, 560 lbs. capped pressure ; volume, 3,000,000 cubic ft. per 24 hours.

In addition to this the city has four wells to a depth of 700 ft., and the private wells in the city are as follows :—

(1) Central Canada Packing Company : 750 ft. deep, 2-in. casing. This is a wet well, was never in good condition and is not in use.

(2) C. Colter, Second Avenue : 700 ft. deep, 3-in. casing, and 270 lb. pressure when capped.

(3) C. Colter, Main Street : 400 ft. deep, 3 in. casing, and 100 lb. pressure when capped. Not in use.

(4) H. Yuill, South Railway Street : 850 ft. deep, 4⅝-in. casing, and 270 lb. pressure when capped.

(5) Canadian Pacific Railway : 1,000 ft. deep, 6-in. casing, with 2-in. tube and packer. This has a pressure of 560 lb. when capped, and a volume of 1,250,000 cubic ft. in 24 hours.

(6) Hargraves well, at end of highway bridge in city : this well is 1,042 ft., has a pressure of 560 lb. when capped, and a discharge of 2,800,000 cubic ft. in 24 hours.

On May 31st, 1910, the city began drilling a well at a point two miles east of Medicine Hat, in the N.E. ¼ of N.E. ¼ of sec. 30, tp. 13, R. 5, W. 4th. This well has a diameter of 10-in. casing and a depth of 937 ft. It was completed August 30th, after striking a good flow of gas, with a pressure of 560 lb. at the end of 24 hours. A small flow of gas was struck at 550 ft. and continued down to 660 ft.

# MISCELLANEA.

## THE PETROLEUM INDUSTRY OF TRINIDAD.

ACCORDING to a report in the Blue Book of the colony of Trinidad and Tobago for 1912–13, issued on Tuesday, the petroleum industry has now become the principal mining industry in the colony. Although the exportation of crude petroleum fell from 7,000,685 gallons in 1911 to 4,295,737 gallons in 1912, the wells that had been drilled were sufficient, the report says, to prove that the oil sands in certain districts held large quantities of the liquid at no great depth. The Inspector of Mines reported that the Trinidad Lake Petroleum Company had drilled several wells on their estates at Brighton, and one, which was sunk in May, 1913, at a depth of 1,900 ft., commenced to give oil at the rate of 50,000 barrels a day. This production ultimately fell, however, to 20,000 barrels a day. The company under notice supplied H.M.S. "New Zealand" with 640 tons of oil fuel on her recent visit to the colony. The number of persons employed in the mines and oilfields throughout the colony aggregated some 2,300.

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## BAKU PETROLEUM PRODUCTION DURING DECEMBER, 1913.

THE production of petroleum on the Baku oilfields during December, 1913, amounted to 35,000,421 poods, including 9,589,436 poods obtained on the Bibi-Eibat area and 25,410,985 poods on the old areas. The production of the principal firms was as follows :—

| | Poods. |
|---|---|
| Nobel Bros. ... ... ... ... | 4,534,801 |
| Mantascheff ... ... ... ... | 3,534,200 |
| Caspian and Black Sea Company ... | 2,200,950 |
| Baku Petroleum Company ... ... | 1,803,846 |
| Caspian Society ... ... ... ... | 1,287,900 |
| Mirzoeff Bros. ... ... ... ... | 1,153,900 |
| Moscow Caucasian Petroleum Society... | 1,056,000 |
| Russian Nafta Society ... ... ... | 990,720 |
| Zoubaloff ... ... ... ... ... | 884,000 |
| Runo ... ... ... ... ... | 878,750 |
| Pitoeff ... ... ... ... ... | 752,900 |
| Miloff and Tairoff ... ... ... | 715,300 |
| Kavkaz Company ... ... ... | 587,100 |
| Aramazd Company ... ... ... | 577,040 |
| Rilski Trustees ... ... ... ... | 553,800 |
| Assodullaeff .. ... ... ... | 546,615 |
| Ter-Akopoff Company ... ... ... | 546,200 |
| Born ... ... ... ... ... | 529,560 |
| Nagieff Mussa ... ... ... ... | 504,874 |
| Oleum ... ... ... ... ... | 514,074 |

The above production included 2,000,000 poods of spouted oil on the Babi-Eibat area.

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## ROUMANIAN CONSOLIDATED PETROLEUM COMPANY, LTD.

THE production of crude oil for the week ended January 31st amounted to 1,170 tons; January, 5,070 tons. Drilled during January, 1,036 ft. Cablegram, Ploesti, dated February 2nd: "Moreni, well No. 5 (depth 1,873 ft.); cleaning out sand; preparing for flow. Well No. 25 has struck new oilsand at depth of 1,233 ft.; testing. Well No. 30, total depth 2,313 ft.; drilling fast with (Johnston) rotary. Chiciura, well No. 3 (depth 1,417 ft.): Oil rises in column when free from sand plugs."

## OUTPUT OF THE BAKU REFINERIES DURING OCTOBER.

THE output of petroleum products from the Baku refineries during October was as under :—

| | Distillate. Poods. | | Refined. Poods. |
|---|---|---|---|
| Kerosene ... ... ... | 6,963,780 | ... | 7,223,304 |
| Solar oil (light) ... ... | 287,783 | ... | 4,090 |
| „ „ (heavy) ... | 448,747 | ... | — |
| Lubricating oils .. ... | 1,966,646 | ... | 1,703.604 |
| Residuals ... ... ... | 12,183,494 | ... | — |
| Benzine .. ... ... | 1.242,931 | ... | 108,896 |
| Other products ... ... | 2,954,002 | ... | — |
| Total ... | 26,047,383 | | 9,039,894 |

◆

## PETROLEUM STOCKS AT BAKU.

THE following table shows the quantities of petroleum and products in store in the Baku refining district on December 1st, 1913 :—

| | Poods. |
|---|---|
| Crude oil ... ... ... ... | 16,345,240 |
| Kerosene ... ... ... ... | 5,284,095 |
| Lubricating oil ... ... ... | 2,041,802 |
| Solar Oil, light ... ... ... | 1,013,984 |
| „ „ heavy ... ... ... | 570,277 |
| Benzine ... ... ... ... | 946,791 |
| Residuals ... ... ... ... | 11,999,023 |
| Other products ... ... ... | 237,530 |
| Total ... ... ... | 38,438,742 |

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## ROUMANIAN PRODUCTION DURING DECEMBER.

THE following table shows the production of crude oil as obtained by the principal firms on the Roumanian oilfields during December :—

| | Tons. |
|---|---|
| Astra-Romana ... ... ... ... | 37,765 |
| Romana-Americana ... ... ... | 35,304 |
| Steaua-Romana ... ... ... | 34,225 |
| Orion ... ... ... ... ... | 8,430 |
| Concordia ... . ... ... | 6,352 |
| International ... ... ... ... | 4,467 |
| Roumanian Consolidated Oilfields, Ltd. ... ... ... ... ... | 4,126 |
| Colombia ... ... ... ... | 3,473 |
| Nafta ... ... ... ... ... | 2,947 |
| Margulies ... ... ... ... | 2,057 |
| Alpha ... ... ... ... ... | 1,987 |
| Aquila Franco-Romana ... ... | 1,612 |
| Trajan Roumanian Oil Company ... | 1,535 |
| Anglo-Roumanian Petroleum Company ... ... ... ... | 1,244 |

◆

**New Cement Works.**—The petroleum producers, Messrs. J. A. Mantascheff, are erecting at Gori, in the Tiflis province, a cement works, the capacity of which will be 800,000 barrels a year. The works will be joined by a branch line with the Transcaucasian Railway. There will also be erected a mill and copper works.

# The American Oil Market.

◆

### Saturday, January 24th, 1914.

The week's review, says the *Oil Paint and Drug Reporter*, has marked a substantial gain in completion work in the high-grade fields, but the new production record fell below that of the former week. Pennsylvania, West Virginia, Kentucky and North-western Ohio were the fields to show the greater number of new wells, but gains in new production were limited to West Virginia, South-eastern Ohio and Illinois. Returns for the current week are 228 completions, 4,520 barrels of new daily production and 70 dry holes, compared with 199 completions, 5,100 barrels of new daily production and 57 dry holes for the former week. The loss in new production has been chiefly due to the generally light average of the new wells. With the return of more favourable weather conditions experimental drilling will be prosecuted with renewed vigour, although the scope of territory in the high-grade fields has been steadily narrowed as a result of former tests. West Virginia, Central Ohio and Kentucky are regarded as probably the most attractive sections for drilling in advance of the defined limits. Following the recent strike in Wirt county, West Virginia, which was regarded as a possible forerunner of a new pool, leasing has become active, and considerable new work is in progress in the district. In several of the sections of the State operators are encouraged to carry drilling to deeper sands below those where the original strikes were made, and in some instances they have been rewarded by increased production. There has been a slump in the returns in Harrison county, and shooting the old producers has become more of a practice, with the result of a temporary stimulus in the output. One of the best completions in West Virginia for the week was a 125-barrel well in Kanawha county. The feature of the South-eastern Ohio field is the Union furnace district of Hocking county. The recent bringing in of a well starting at 500 barrels a day has afforded a keen incentive to drilling operations. One of the week's results has been a century producer in the deep Clinton sand formation. In the shallow sandfields of the section weather conditions have operated to curtail drilling, but one of the completions of the week in Belmont county was reported good for 150 barrels a day. In the Wooster fields of Central Ohio a development of particular interest has been reported in the completion of a well promising 450 barrels a day as a result of deeper drilling. This strike is likely to lead to extensive drilling below the original sands.

Of principal interest in the California situation has been the announcement that the negotiations for the control of the Union Oil Company by the British interests now in charge of the General Petroleum Company have been declared off temporarily, owing to some difficulty over the transfer of monthly stocks Negotiations will probably be renewed with the object of consummating the purchase of the Union interests which are now recognised as being the key to the situation. From the present outlook the control of the California fields would seem to be in the hands of three concerns, two of them representing foreign interests. The demand for California oil is constantly increasing with new markets opening up rapidly. The latest prospect for a substantial demand for fuel oil is the Canadian Transcontinental Railways, which have been ordered to equip the western division engines with liquid fuel burners.

## Refined Products.

The local market for illuminating oils has evidenced an improving trend of buying interest with the advance of the month, and with the general seasonable conditions operating favourably upon consumption, trading is expected to maintain its broadening character. The general undertone of the market continues one of apparent steadiness with lately prevailing quotations in effect for all varieties. There has been a fairly active export movement during the week, our record of clearances from the local port showing a total of 14,325,760 gallons, bringing the aggregate since the first of the year to 28,869,490 gallons, as against 34,155,165 gallons for the corresponding period of last year. From all ports in our statistical summary the comparison is 38,429,645 gallons for 1914, against 45,661,910 gallons for 1913. The leading foreign markets have remained at stationary levels, according to the week's cable advices.

## Lubricating Oils.

Under the general curtainment of commercial and industrial activity the continued lightness of the consuming movement in the lubricating products cannot be regarded as an unusual condition of the market. Producers, however, maintain their output within commensurate limits, with the effect of inducing a nominally steady tone to the market. The substantial position of crude is held to be of encouraging significance upon values for the lubricant.

### CLOSING QUOTATIONS.

#### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. Jan. 24. | 1914. Jan. 24. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.05 | $2.50 |
| North Lima ... ... ... ... | 1.28 | 1.49 |
| South Lima ... ... ... ... | 1.23 | 1.44 |
| Indiana ... ... ... ... ... | 1.23 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.11 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.83 | 1.03 |
| Humble, Tex. ... ... ... ... | 0.75 | 0.90 |
| Saratoga ... ... ... ... ... | 0.75 | 0.90 |
| Sour Lake, Tex ... ... ... ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| ,, Kern River heavy ... | — | 0.35 |
| Canadian Oil ... ... ... ... | 1.68 | 1.89 |

#### Refined—For Export.

| In cents. | Week ended Jan. 24. S.W. 110 test. | W.W. 150 test. |
|---|---|---|
| Bulk, New York ... per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... ... | 8·75 | 9·75 |
| Cases, New York ... ... ... | 11·25 | 12·25 |
| Cases, Philadelphia ... ... ... | 11·25 | 12·25 |

#### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... .. ... ... | 29½ |

#### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

#### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½-9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 15,026,670 | 17,411,405 | 7,270,765 |
| Refined ... ... | 16,536,665 | 38,429,645 | 45,661,910 |
| Naphtha ... | 2,329.280 | 2,963,940 | 3,162,725 |
| Gas oil ... ... | 479.205 | 3,529,205 | 7,564,200 |
| Fuel oil... ... | 31,200 | 4,388,200 | 4,806,110 |

WORTHINGTON & BOLER
LIVERPOOL, LONDON & GLASGO

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co, 61, St. Mary Axe, E.C.

February 6th, 1914.

There are no further alterations to report in Refined Petroleum, prices being as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS

are unaltered as follows :—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL

is officially quoted 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 80s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

The best quality is quoted 1s. 9d. per gallon retail in London, and the second quality 1s. 7d. per gallon.

### TURPENTINE.

American spot, 32s.; March/April, 32s. 3d.; May/August, 33s. 1½d.; September/December, 34s. 1½d.

## LIVERPOOL.

February 4th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, January 7th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, February 4th.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

Philadelphia, February 4th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, February 3rd.

The petroleum prices remain unchanged. The demand for kerosene begins to be lively, that for benzine decreasing. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, February 3rd.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 36½–36¾ copecs per pood spot. Kerosene, 47½–48 copecs. Residuals, 36¾–37 copecs.

## ROUMANIA.

February 3rd.

The export of petroleum is for the moment very restricted. The latest prices are :—

| Crude oil from different fields, including | | Francs. |
|---|---|---|
| pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·15 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 5·50–6·00 |
| ,, ,, ,, | Policiori... | 5·30 |
| ,, ,, ,, | Bana ... | 10·50 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

February 3rd.

Crude oil is quoted 8·02 kronen spot. Kerosene, 28½ kronen at Oderberg. Benzine, 690/700, 42 kronen; 700/710, 40 kronen, at Oderberg. Gas oil, 7·50 kronen at Oderberg. Paraffin, on the basis 50/52, 58·75 kronen.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date February 5th as under :—

The market has further improved, a satisfactory amount of business having been put through at increased prices during the past week. We make prices of oil plates to-day :

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 13/7½ per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... | 19/3 ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED FEBRUARY 2ND, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Jan. | LONDON— | | | |
| 27 | Port Authority | Lub. | 2,450 | Hamburg |
| 27 | ,, | ,, | 3,400 | Philadel. |
| 28 | J. W. Cook & Co. | ,, | 10,040 | ,, |
| 28 | Vacuum Oil Co. | ,, | 80 | Antwerp |
| 28 | British and Foreign Wharf | ,, | 100 | ,, |
| 28 | London Oil Storage Co. | ,, | 9,130 | Dunkirk |
| 28 | ,, ,, | Fuel | 1,030 | ,, |
| 28 | Motor Petrol Association | Benzine | 3,020 | Brussels |
| 28 | John Cockerill Line | Spirit | 60 | Ostend |
| 29 | Lubricating & Fuel Oils Co. | Lub. | 20,000 | Batoum |
| 29 | ,, ,, | ,, | 604,660 | ,, |
| 29 | Hanseatic Maritime Agency | ,, | 40 | Bremen |
| 29 | Lubricating & Fuel Oils Co. | ,, | 338,100 | Hamburg |
| 29 | A. Duckham & Co. | ,, | 1,200 | Antwerp |
| 29 | Anglo-American Oil Co. | Gas | 1,183,100 | New York |
| 29 | ,, ,, | ,, | 1,137,660 | ,, |
| 29 | Langley, Smith & Co. | Lub. | 26,310 | ,, |
| 29 | Union Lighterage Co. | ,, | 2,600 | Philadel. |
| 29 | Callender's Cable Co. | ,, | 2,700 | ,, |
| 30 | Produce Brokers Co. | ,, | 6,000 | N. Orleans |
| 30 | Vacuum Oil Co. | ,, | 38,770 | New York |
| 30 | ,, | Lub. Gr. | 2,560 | ,, |
| 30 | G. W. Sheldon & Co. | Lub. | 90 | ,, |
| 30 | Mercantile Lighterage Co. | ,, | 14,640 | ,, |
| 30 | Vacuum Oil Co. | ,, | 240 | Hamburg |
| 30 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 6,540 | ,, |
| 30 | Motor Petrol Association | Benzine | 2,520 | Brussels |
| 31 | Produce Brokers Co. | Lub. | 1,000 | New York |
| Feb. | | | | |
| 2 | Anglo-American Oil Co. | ,, | 36,560 | ,, |
| 2 | F. Chiesman & Co. | ,, | 2,000 | ,, |
| 2 | ,, | ,, | 2,800 | Philadel. |
| 2 | J. Thompson | ,, | 4,180 | ,, |
| 2 | Schliemann Oil, etc., Co. | Lub. Gr. | 2,600 | ,, |
| 2 | Lubricating & Fuel Oils Co. | Lub. | 20,500 | ,, |
| 2 | British Petroleum Co. | Lamp | 445,000 | ,, |
| 2 | ,, ,, | Fuel | 2,000 | ,, |
| 2 | Leach & Co. | Lub. | 240 | Ghent |
| 2 | L. Freeland | Lub. Gr. | 840 | Antwerp |
| Jan. | LIVERPOOL— | | | |
| 27 | Dee Oil Co. | Lub. | 400 | Hamburg |
| 27 | Vacuum Oil Co. | ,, | 530 | New York |
| 27 | Anglo-American Oil Co. | Gas | 424,320 | Philadel. |
| 27 | J. Light & Son | Lub. | 3,000 | N. Orleans |
| 27 | Meade-King, Robinson & Co. | Lub. Gr. | 1,000 | New York |
| 28 | F. Schofield & Co. | Lub. | 3,000 | ,, |
| 28 | Anglo-American Oil Co. | Gas | 163,980 | Sabine |
| 28 | J. Light & Son | Lub. Gr. | 400 | Hamburg |
| 29 | Huxley & Co. | Lub. | 200 | Ghent |
| 29 | D. Owen & Son | ,, | 2,600 | Baltimore |
| 29 | A. Hopps & Sons | ,, | 47,240 | ,, |
| 29 | Meade-King, Robinson & Co. | ,, | 2,600 | ,, |
| 30 | W. B. Dick & Co. | ,, | 15,280 | Philadel. |
| 30 | Meade-King, Robinson & Co. | ,, | 19,120 | ,, |
| 30 | E. Harrison & Co. | ,, | 4,000 | ,, |
| 30 | Bowring Petroleum Co. | ,, | 610 | ,, |
| 30 | Anglo-American Oil Co. | ,, | 2,000 | ,, |
| 30 | Worthington & Boler | ,, | 2,480 | ,, |
| 30 | F. Schofield & Co. | ,, | 2,800 | ,, |
| 30 | Bramwell, Fern & Co. | ,, | 8,740 | ,, |
| 30 | Crew, Levick & Co. | ,, | 70,830 | ,, |
| 30 | ,, | M. Colza | 6,320 | ,, |
| 30 | American Line | Lub. | 3,400 | ,, |
| 30 | Bennett's Haulage, etc., Co. | ,, | 5,200 | ,, |
| 30 | Anglo-American Oil Co. | ,, | 588,310 | New York |
| 30 | Allan Bros. & Co. | ,, | 4,000 | St. John's |
| 30 | Meade-King, Robinson & Co. | Spirit | 50,000 | Rotterdam |
| 2/2 | C. C. Wakefield & Co. | Lub. | 2,710 | Baltimore |
| | BARROW— | | | |
| 2/2 | Bowring Petroleum Co. | Benzine | 754,170 | P. Mexico |
| | BRISTOL— | | | |
| 28 | Pickford's | Lub. | 950 | Hamburg |
| 28 | Ford & Canning | ,, | 3,120 | New York |
| 29 | C. Hill & Sons | ,, | 200 | ,, |
| 29 | J. & R. Bush | ,, | 15,440 | ,, |
| 29 | Heaton & Co. | ,, | 430 | Antwerp |
| 30 | W. G. Clarke | ,, | 500 | ,, |
| 2/2 | C. Hill & Sons | ,, | 3,400 | New York |
| | BOSTON— | | | |
| 2/2 | W. F. Beaumont | ,, | 420 | Hamburg |
| Feb. | CARDIFF— | | | |
| 2 | Bristol Steam Navig. Co. | Lub. Gr. | 60 | Hamburg |
| Jan. | GOOLE— | | | |
| 29 | Goole Steamship Co. | Lub. | 2,880 | ,, |
| | HARWICH— | | | |
| 23 | Great Eastern Railway | ,, | 280 | Antwerp |
| 29 | ,, ,, | ,, | 240 | ,, |
| 31 | ,, ,, | ,, | 360 | ,, |
| | HULL— | | | |
| 27 | British Petroleum Co. | Lamp | 1,490,560 | Kustendje |
| 27 | W. Gilyott & Co. | Lub. | 50,460 | New York |
| 27 | T. Wilson, Sons & Co. | ,, | 29,000 | ,, |
| 29 | W. Gilyott & Co. | ,, | 59,400 | ,, |
| 29 | T. Wilson, Sons & Co. | ,, | 800 | Copenhagen |
| 30 | Wilson's & N. E. Railway | ,, | 1,000 | Antwerp |
| 2/2 | ,, ,, | ,, | 1,640 | Hamburg |
| | MANCHESTER— | | | |
| 27 | Liverpool Storage Co. | M. Colza | 5,000 | Philadel. |
| 27 | Anglo-American Oil Co. | Lub. | 7,410 | ,, |
| 27 | Bramwell, Fern & Co. | ,, | 18,480 | ,, |
| 27 | W. Hodgson & Co. | ,, | 2,650 | ,, |
| 27 | Fellows, Morton & Clayton | ,, | 4,090 | ,, |
| 27 | Anglo-American Oil Co. | ,, | 88,510 | New York |
| 27 | Diamond Lubricating Co. | Lub. Gr. | 2,750 | ,, |
| 27 | D. Currie & Co. | Lub. | 180 | Hamburg |
| 27 | J. T. Fletcher & Co. | ,, | 240 | Ghent |
| 31 | Fellows, Morton & Clayton | ,, | 3,380 | Philadel. |
| 31 | Bowring Petroleum Co. | Lamp | 456,680 | P. Mexico |
| 31 | Anglo-American Oil Co. | Lub. | 621,000 | New York |
| 2/2 | C. H. Morton & Son | ,, | 2,560 | Philadel. |
| 2/2 | McLiners, Ltd. | ,, | 5,200 | ,, |
| 2/2 | Meade-King, Robinson & Co. | ,, | 200 | ,, |
| 2/2 | ,, ,, | ,, | 20,240 | ,, |
| 2/2 | Vacuum Oil Co. | ,, | 400 | Hamburg |
| | NEWCASTLE— | | | |
| 29 | P. H. Matthiessen & Co. | ,, | 650 | Bergen |
| 29 | Tyne-Tees Steamship Co. | ,, | 5,970 | Hamburg |
| 29 | ,, ,, | ,, | 1,000 | Antwerp |
| 31 | ,, ,, | ,, | 720 | ,, |
| | SOUTHAMPTON— | | | |
| 27 | P. E. Curry | ,, | 150 | New York |
| | PLYMOUTH— | | | |
| 27 | Bristol Steam Navig. Co. | Lub. Gr. | 1,060 | Antwerp |
| | SWANSEA— | | | |
| 29 | Burgess & Co. | ,, | 580 | Hamburg |
| | ABERDEEN— | | | |
| 30 | R. C. Reid | Lub. Oil and Gr. | 1,540 | ,, |
| | GLASGOW— | | | |
| 27 | J. & P. Hutchison | Lub. | 200 | Rouen |
| 28 | Clyde Shipping Co. | ,, | 800 | Antwerp |
| 28 | ,, | ,, | 1,000 | Ghent |
| 28 | ,, | ,, | 60 | Antwerp |
| | GRANGEMOUTH— | | | |
| 31 | Jas. Currie & Co. | ,, | 200 | Hamburg |
| | LEITH— | | | |
| 29 | W. G. Yooll & Co. | Lamp | 4,360 | ,, |
| 29 | Jas. Currie & Co. | Lub. | 1,600 | ,, |
| 30 | G. Gibson & Co. | ,, | 1,480 | Dunkirk |
| 30 | ,, | ,, | 190 | Antwerp |
| 2/2 | W. G. Yooll & Co. | Lamp | 4,360 | Hamburg |
| 2/2 | Jas. Currie & Co. | Lub. | 120 | ,, |
| 2/2 | G. V. Turnbull & Co. | M. Colza | 5,200 | Philadel. |
| 2/2 | ,, ,, | Lub. | 6,000 | ,, |
| | BELFAST— | | | |
| 30 | J. C. Pinkerton & Co. | Lub. Oil and Gr. | 200 | Hamburg |
| 2/2 | G. Heyn & Sons | Lub. | 2,100 | N. Orleans |
| | CORK— | | | |
| 27 | P. Murphy & Co. | ,, | 120 | Hamburg |
| | | | 9,060,770 | |

*From Lloyd's* February 5th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Iquique | San Francisco | Arr. Jan. 23 |
| AMERICAN | Antwerp | New York | Arr. Jan. 31 |
| APPALACHEE* | New York | London | Arr. Jan. 31 |
| APSCHERON | Venice | Kustendje | Arr. Feb. 4 |
| ARAL | Tyne | New York | Arr. Jan. 23 |
| ARAS | Hamburg | Blyth | Arr. Jan 15. In port Feb. 3 |
| ARCA | Kustendje | Alexandria | Pd. Dard. Feb. 2 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Pd. Gib. Jan. 26 |
| ASHTABULA* | Antofagasta | San Francisco | Arr. Jan. 10 |
| ASTRAKHAN | Kustendje | Hamburg | Pd. Dard. Jan. 27 |
| AUREOLE | Port Arthur. | London | L. Norfolk, Va., Jan. 29 |
| AZOV | San Francisco | Talara Bay | L. Jan. 20 |
| BAKU STANDARD | Dartmouth | Kustendje | Pd. Gib. Feb. 4 |
| BALAKANI □ | Manchester | New Orleans | Pd. Eastham Feb. 3 |
| BATOUM | London & Amsterdam | Jacksonville. | Pd. Prawle Pt. Jan. 24 |
| BAYONNE | Kustendje | Antwerp | Pd. Dard. Jan. 31 |
| BEACON LIGHT | Kustendje | Invergordon. | Pd. Ushant Jan. 28 |
| BLOOMFIELD | Tuxpan | Philadelphia. | Arr. Feb. 1 |
| BORJOM | Alexandria | Batoum | Cl. Constantinople Jan. 29 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | L. Dec 31 |
| BRILLIANT | Sabine | Swinemunde | Pd. Dunnet Hd. Feb. 3 |
| BRITISH SUN | Hamburg | Philadelphia. | Arr. Jan 23 |
| BROADMAYNE | New York | Calais | Arr. Halifax Jan. 22 |
| BUFFALO | Mi-ike | San Francisco | Arr. Jan. 29 |
| BULLMOUTH △ | Singapore | Bombay | L. Jan. 29 |
| BULYSSES | Kurrachee | Rangoon | L. Gallo Jan. 28 |
| BURGERMEISTER PETERSEN | New York | Dantzig | L. Jan. 30 |
| BUYO MARU | Calcutta | Rangoon | L. Jan. 11 |
| C. A. CANFIELD* | Sabine | Tampico | L. Jan. 21 |
| CALCUTTA (Br. Bq.) | Yokohama | San Francisco | L. Jan. 15 |
| CAMILLO | Port Arthur. | Sheerness | L. Norfolk Feb. 3 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | Batoum | Colombo | L. Suez Feb 1 |
| CARPATHIAN □ | Tyne | Philadelphia. | L. Feb. 3 and put back |
| CASTOR | Cochin | Aroe Bay | L. Jan. 28 |
| CAUCASIAN □ | Hull | New Orleans. | Pd. Dover Feb. 3 |
| CHARLES E. HARWOOD | New Orleans | Tampico | L. Port Eads Jan. 15 |
| CHARLOIS | Rotterdam | Sabine | Pd. Dover Jan. 9 |
| CHATHAM | Port Tampa. | New Orleans. | Cl. Havana Jan. 19 |
| CHESTER | Antwerp | New York | Sp. Jan. 25, 48 N., 45 W. |
| CHEYENNE | Tyne | Norfolk, Va. | Pd. Cape Wrath Jan. 20 |
| CHIRA (Tug) | — | — | Coasting Peru and Ecuador |
| CIRCASSIAN PRINCE | — | — | T. W.C.S. America |
| CITY OF EVERETT | Port Arthur. | New York | Arr. Jan. 23 |
| CLAM △ | Suez | Mombassa | L. Perim Feb. 2 |
| CLEARFIELD | — | Tuxpan | Arr. Jan. 20 |
| COMANCHEE | Manchester | Philadelphia | Arr. Jan. 31 |
| CONCH △ | Singapore | Gibraltar | L. Jan. 30 |
| CONRAD MOHR | Tyne | Philadelphia. | L. Jan. 20 |
| CORDELIA | Iquique | Port San Luis | L. Dec. 31 |
| COWRIE △ | San Francisco | Shanghai | Put back San Francisco after being ashore |
| CURRIER | Porto Rico | New Orleans | Arr. Jan. 25 |
| CYMBELINE | Newport | Port Arthur. | Arr. Feb. 1 |
| CZAR NICOLAI II. | London | Batoum | L. Feb. 2 |
| DAGHESTAN | Rouen | Philadelphia. | Sp. Jan. 27, 49 N. 15 W. |
| DANUBIAN □ | Port Arthur. | London | L. Jan. 26 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Pd. St. Helena Jan. 20 |
| DELAWARE* | Novorossisk | London | L. Algiers Jan. 30 |
| DELPHIN | Rostock & Tyne | Baton Rouge | Arr. New Orleans Feb. 2 |
| DERBENT | Batoum | Hamburg | Pd. Peniche Feb. 1 |
| DESALBA | Tyne | Port Harford (Calif.) | Arr. Jan. 24 |
| DEUTSCHLAND | Rotterdam | Philadelphia. | Pd. Dunnet Hd. Jan. 24 |
| DIAMANT | Tyne | New York | Arr. Jan. 31 |
| DONAX | Barrow | — | Pd. Perim Feb. 1 |
| EBURNA | Suez | Abadan | Pd. Perim Jan. 25 |
| EDWARD L. DOHENEY | Philadelphia. | Tampico | Pd. Sand Key Jan. 21 |
| EL LOBO | San Francisco | Lobitos | Arr. Jan. 31 |
| EL SEGUNDO | Vancouver | San Francisco | L. Jan. 16 |
| EL TORO | Galveston | — | L. Jan. 28 |
| ELAX △ | New Orleans | Trieste | L. St. Michael's Feb. 2 |
| ELISE MARIE | Helsingborg & Tyne | Philadelphia. | Arr. Jan. 29. |
| ELSINORE | Emden | Seattle | L. Punta Arenas Jan 21 |
| EMANUEL NOBEL | Antwerp | Batoum | Arr. Jan. 30 |
| ENERGIE | New York | Tuxpan | Arr. Newport (Florida) Jan. 22 |
| ERIVAN | Dunkirk | Batoum | L. Jan. 30 |
| ESCALONA | Port Arthur. | Rio Janeiro | L. Jan. 24 |
| ESTURIA | Singapore | Aomori | Arr. Manila a'bt Jan. 28 |
| EUPION | Sunderland | — | L. Jan. 29 |
| EUPLECTELA △ | Shanghai | Singapore | Arr. Feb. 2 |
| EXCELSIOR | New York | Copenhagen | L. Jan. 23 |
| F. A. TAMPLIN | Norfolk, Va. | Barrow | Arr. Feb. 1 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans | New York | Arr. Jan. 28 |
| GENESSE* | Liverpool | New York | Pd. Fastnet Feb. 2 |
| GEORGIAN PRINCE | Port Arthur. | Antwerp | L. Norfolk, Va., Jan. 21 |
| GOLDMOUTH △ | Thames Haven | Batoum | Pd. Pantelleria Feb. 2 |
| H. C. HENRY | Rotterdam | Grangemouth | Arr. Feb. 1 |
| HAGEN | Hamburg | New York | Pd. Lizard Jan. 27 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | San Francisco | Pisagua | L. Jan. 18 |
| HARRY LUCKENBACH | Tampa | Baltimore | Pd. Cape Henry Jan. 22 |
| HAVRE | Sydney | Singapore | L. Feb. 3 |
| HELIOS | Rotterdam | New York | Pd. Dunnet Hd. Feb. 4 |
| HERA | Philadelphia. | Hamburg | L. Jan. 23 |
| HERBERT G. WYLIE | Tampico | Galveston | Arr. Jan. 21 |
| HERMIONE | Port Arthur | Portsmouth | Arr. Feb. 3 |
| HESPERUS | Callao | San Francisco | Arr. about Feb. 12 |
| HORLEY | Baltimore | Tampico | Put in Sand Key Jan. 23 |
| HOTHAM NEWTON | Hull | Batoum | Pd. Gibraltar Jan. 28 |
| HYRCANIA | Avonmouth | Kustendje | Pd. Gibraltar Feb. 2 |
| ILLINOIS | Antwerp | Port Arthur. | L. Jan. 31 |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IROQUOIS (Towing Barge Navahoe) | London | New York | 130 miles S.W. of Brow Hd. Jan. 26 |
| J. B. AUG. KESSLER | Thames Haven | Malta | L. Dartmouth Feb. 2 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. Jan. 21 |
| JULES HENRY (Fr. Bq.) | Rotterdam | Amsterdam | Arr. Nov. 23. In port Jan. 27 |
| JUNO | Palembang | Miri | L. Jan. 23 |
| KANAKUK | Singapore | San Francisco | L. Jan. 3 |
| KASBEK | Hamburg | Kustendje | L. Feb. 3 |
| KIOWA | Rotterdam | Sabine | Arr. Jan. 29 |
| KIO MARU | Valparaiso | Hong Kong | Arr. about Jan. 24 |
| KOMETA | Spezia | Novorossisk. | Cl. Constantinople Jan. 16 |
| KREMLIN | Genoa | Kustendje | L. Jan. 27 |
| KURA | Philadelphia. | Copenhagen. | Pd. Delaware B'water Jan. 20 |
| LA CAMPINE | Antwerp | New York | Arr. Jan. 28 |
| LA FLANDRE | Antwerp | Sabine | Pd. Scilly Jan. 23 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | New York | Antwerp | Arr. Jan. 31 |
| LACKAWANNA* | New York | Manchester | Arr. Feb. 1 |
| LE COQ □ | New York | Havre Roads | L. Jan. 29 |
| LEDA | Tyne | Baton Rouge | In wireless com. Jan. 23 41 N. 30 W |
| LOKI | Hamburg | New York | Spoken Jan. 28. 50 N. 12 W. |
| LUCELLUM | Southampton | New York | Pd. Lizard Jan. 27 |
| LUCERNA | Thames Haven | Malta | Pd. Prawle Pt. Feb. 1 |
| LUCIGEN | Portsmouth | Cardiff | Arr. Feb. 4 |
| LUCILINE □ | Rouen | Philadelphia. | Arr. Feb. 4 |
| LUMEN | Kustendje | Hamburg | Pd. Cape Bon Feb. 3 |
| LUTETIAN □ | Bouc | Novorossisk | Arr. Feb. 3 |
| LUX □ | New York | Bilbao | L. Jan. 23 |
| LUZ BLANCA | Payta | Callao | Arr. Jan. 4 |
| MAKKAVEI | Kustendje | Smyrna | Cl. Constantinople, Jan. 26 |
| MANNHEIM | Aarhus | Philadelphia. | L. Tyne Feb. 2 |
| MARGARETHA | La Pallice | Kustendje | Pd. Gib. Jan. 26 |
| MASCONOMO | San Francisco | Muroran | L. Dec. 27 |
| MASSASOIT | Calcutta | San Francisco | Arr. Jan. 14 |
| METEOR | Vladivostock. | — | Called Perim Feb. 1 |
| MEXICAN PRINCE | Tsingtau | Shanghai | Arr. Dec. 31 |
| MIJDRECHT | Kustendje | London | Arr. Thames Haven Feb. 3 |
| MINA BREA | San Francisco | Payta | Arr. Jan. 27 |
| MIRA | Philadelphia. | Venice | Pd. Delaware B'kwater Jan. 20 |
| MITRA | Port Said | Abadan | Arr. Jan. 30 |
| MOHAWK* | Tuxpan | New York | Arr. Jan. 31 |
| MOHICAN | Port Arthur | Rotterdam | L. Jan. 24 |
| MUREX △ | Balek Pappan | Hong Kong | L. Jan. 28 |
| NARRAGANSETT | London | New York | Arr Jan. 29 |
| NATICA | Singapore | Tsingtau | L. Hong Kong Jan. 31 |
| NELSON | New York | Jucaro | Sp. Jan. 4. 45 m. N.W. Cape Cruz |
| NEW YORK* | New York | Rotterdam | L. Jan. 28 |
| NIAGARA | San Francisco | Hong Kong | L. Jan. 26 |
| NORMAN BRIDGE | Galveston | Tampico | L. Jan. 18 |
| OBERON | Tocopilla | San Francisco | Arr. ab't Jan. 16 |
| OCEAN | Sabine | Amsterdam | Pd. Diamond Sh. Light Jan. 23 |
| OILFIELD | Batoum | London | Pd. Dard. Feb. 2 |
| OKLAHOMA | New York | Port Arthur | Abandoned S. of Sandy Hook and sunk |
| ORIFLAMME □ | Rouen | Novorossisk | Pd. Gib. Feb. 1 |
| OSAGE | Tuxpan | New York | Arr. Jan. 22 |
| OTTAWA* | Liverpool | Maryport | Arr. Feb. 1 |
| OURAL | Kustendje | Alexandria | L. Feb. 2 |
| PALEMBANG | Calcutta | Rangoon | L. Jan. 30 |
| PATELLA △ | Singapore | Rotterdam | Pd. Dungeness Feb. 4 |
| PAUL PAIX | Calais | Tees | Arr. Feb. 2 |
| PAULA | Hamburg | Philadelphia. | Pd. Dover Feb. 4 |
| PAWNEE | New York | Lisbon | Arr. Jan. 29 |
| PECTAN | Taltal | Port San Luis | Ashore San Miguel I. Jan. 25 |
| PENNOIL | Rotterdam | Philadelphia. | Pd. Beachy Hd. Feb. 3 putting back |
| PETROLEINE | Pauillac | New York | Arr. Jan. 28 |
| PETROLEUM | Port Arthur | Portsmouth | Arr. Feb. 2 |
| PHOEBUS | Iquique | San Francisco | L. Jan. 29 |
| PINNA □ | Hamburg | Tyne | Arr. Feb. 3 |
| PONUS | San Francisco | Chinkiang | Pd. Woosung Jan. 18 |
| POTOMAC* | London | New York | Arr. Jan. 24 |
| POWHATTAN | San Francisco | Bombay | L. Dec. 28 |
| PROMETHEUS | San Francisco | Antofagasta | L. Jan. 13 |
| PRUDENTIA | New York | Trinidad | L. Jan. 19 |
| PURELIGHT | Hamburg | Philadelphia. | Arr. Jan. 30 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | Anchored Corvette (Rouen) about Jan. 21 |
| RADIOLEINE | Rouen | Port Arthur. | Arr. Newport News Jan. 30 |
| RANELLA | Singapore | Gibraltar | L. Colombo Jan. 30 |
| RENDOVA (Br. Bq.) | New York | Seville | Arr. Jan. 27 |
| RICHMOND | San Francisco | Port San Luis | Arr. Jan. 15 |
| RION | Hamburg | Blyth | Arr. Jan. 18. In port Feb. 3 |
| ROCK LIGHT □ | Tees | New Orleans | L. Newport News Jan. 31 |
| ROMANY △ | Singapore | Hong Kong | L. Jan. 31 |
| ROSALIND | Portland, Dor. | Port Arthur | L Jan. 24 |
| ROTTERDAM | New York | Amsterdam | Pd. Scilly Feb. 4 |
| ROUMANIAN □ | Hull | Sabine | Off Isle of Wight Jan 29 |
| ROUMANIAN PRINCE | Port Arthur | Italy | Pd. Gib. Jan. 25 |
| RUSSIAN PRINCE | Port Aransas | Tampico | L. Jan. 19 |
| SALAHADJI △ | Sydney | Balek Pappan | L. Melbourne Jan. 17 |
| SAMOSET | San Francisco | Shanghai | Arr. ab't Jan. 30 |
| SAN ANTONIO | Puerto Mexico | Sheerness | Arr. Feb. 1 |
| SAN BERNARDO | Puerto Mexico | United Kingdom | L. Jan. 31 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Puerto Mexico | Norfolk, Va. | L. Jan. 29 |
| SAN EDUARDO | London | New York | 105 m. from Brow Head Jan. 27 |
| SAN FRATERNO | Queenboro' | Balek Pappan | Pd. Gib. Jan. 31 |
| SAN GREGORIO | Rotterdam | New York | Pd. Nantucket Feb. 2 |
| SAN HILARIO | Tyne | Borneo | Pd. Perim Jan. 21 |
| SAN JOAQUIN | Tyne | San Francisco | Arr. Punta Arenas ab't Jan. 20 |
| SAN RICARDO | Balek Pappan | Portland | L. Malta Feb. 2 |
| SAN SILVESTRE | Avonmouth | Philadelphia. | L. Jan. 23 |
| SAN TIRSO | New York | Tuxpan | L. Jan. 25 |
| SAN URBANO | Thames Haven | Gravesend | Arr. Jan. 20. In port Jan. 28 |
| SAN VALERIO | Puerto Mexico | Philadelphia. | Arr. Feb. 3 |
| SANTA MARIA | Hilo | San Francisco | Arr. Dec. 12 |
| SANTA RITA | Port San Luis | Bilbao | L. Dec. 29 |
| SATANTA | Singapore | San Francisco | Arr. Jan. 14 |
| SAXOLEINE | Rouen | Tyne | Arr. Jan. 22 |
| SEQUOYA | San Francisco | Amoy | Arr. ab't Jan 23 |
| SERVIAN □ | Belfast | Port Arthur | Pd. Sand Key Feb 4 |
| SHABONEE | Calcutta | San Francisco | Arr. Singapore ab't Jan 12 |
| SILVIA | Tyne | Port Arthur. | L. Jan. 22 |
| SIOUX | Buenos Aires | San Francisco | L. Taltal Jan. 16 |
| SIRIUS (Ger.) | London | Kustendje | L. Feb. 4 |
| SOCONY | Port Arthur | New York | L. Jan. 19 |
| SOYO MARU | Persian Gulf. | — | Arr. Suez Jan. 25 |
| SPLENDOR | Messina | Philadelphia. | Arr. Feb. 1 |
| STAG | Antilla | Rotterdam | Arr. Jan. 30 |
| STANDARD | Kustendje | Birkenhead | Pd. Dard. Feb. 2 |
| STROMBUS △ | Portsmouth | Cardiff | Arr. Jan. 27 |
| SULTAN VAN LANGKAT △ | Abadan | Suez | Arr. Jan. 30 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4. In port Jan. 20 |
| SURAM | Copenhagen | Blyth | Arr. Jan. 16. In port Feb. 3 |
| SUWANEE* | Sunderland | New York | Arr. Jan. 22 |
| SVIET | Rouen | Batoum | Arr. Jan. 17 |
| TASCALUSAH | New York | Port Said | Arr. Algiers Jan. 31 |
| TATARRAX | New York | Port Said | L. Jan. 22 |
| TEAKWOOD | Bristol | Barry | Arr. Jan. 18. In port Feb. 3 |
| TECUMSOH | Tampico | Philadelphia. | Arr. Jan. 24 |
| TELENE △ | Tyne | New Orleans | Arr. Feb 4 |
| TEREK | London | Sunderland | L. Feb. 4 |
| TEXAS | New York | Port Arthur | L. Jan. 20 |
| TIFLIS | Batoum | Antwerp | L. Jan. 31 |
| TONAWANDA* | Sunderland | New York | Arr. Jan. 31 |
| TRINCULO | San Francisco | Tocapilla | L. Port San Luis Jan. 7 |
| TRINIDADIAN | Tampico | Port Arthur | Arr. Jan. 21 |
| TRITON | Hamburg | Key West | Pd. Prawle Pt. Feb. 3 |
| TROCAS △ | Singapore | Yokohama | L. Hong Kong Feb. 1 |
| TURBO | Rangoon | Bremerhaven | Arr. Feb. 2 |
| UNCAS | San Francisco | Hong Kong | L. Dec. 29 |
| VEDRA | Bremerhaven | Port Arthur | Pd. Prawle Pt. Feb. 3 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Philadelphia. | Arr. Feb. 2 |
| VITRUVIA | New York | Barrow | Arr. Feb. 2 |
| VOLCANUS | Saigon | Palembang | L. Feb. 2 |
| VOLUTE △ | Singapore | Calcutta | Arr. Jan. 30 |
| WABASHA | San Francisco | Calcutta | Arr. ab't Feb. 2 |
| WANETA | Tampico | Sabine | 223 miles S. of Sabine Bar Jan 23 |
| WAPELLO | New York | Liverpool | Arr. Feb. 5 |
| WASHINGTON | Tyne | Norfolk | L. Jan. 22 |
| WEEHAWKEN | London | Cienfuegos | Arr. Feb. 3 |
| WIELDRECHT | Kustendje | Aalesund | Pd. Gib. Feb. 3 |
| WILLIAM F. HERRIN | San Francisco | Monterey | L. Dec. 10 |
| WILLKOMMEN | Hamburg | New York | L. Jan. 20 |
| WINAMAC | Bombay | — | Arr. Singapore ab't Jan. 29 |
| WOTAN | Hamburg | New York | Put back Plymouth Jan. 24 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**Our Anniversary Issue.**

WITH the publication of this issue of the REVIEW the journal celebrates its fifteenth birthday· Established in 1989, when the petroleum industry was but of very small dimensions, and when there was little international interest in matters concerning the petroleum trade, there were many whom we can count among our warmest supporters to-day who predicted for the REVIEW but a fleeting existence. We ourselves have to admit—and with some degree of pride—that the journal had its trials, but it is gratifying to look back and recollect how each difficulty was surmounted as it came along. But to-day those early struggles only serve to remind us how gigantic have been the strides made in the world's petroleum industry since the REVIEW made its debut. To-day the search for crude oil is world-wide, and its consumption has reached such a point that almost three hundred oil tankers are regularly engaged in carrying petroleum products in bulk across the oceans of the universe. What a strange contrast with matters as they existed when we went to press with No. 1 of the REVIEW. The transport of oil by sea was restricted to less than a hundred vessels, but a few of which were oil tankers, and even that few were of small dimensions—mere dwarfs to the mammoth 16,000 tonners we see to-day. As our first issue was on the machines the first oil tanker arrived in Dublin amid much ceremony. What a wonderful expansion the petroleum industry has witnessed in the interregnum ?

◆

**America's Export Trade During 1913.**

THAT America is losing no opportunity to add to the strength of its petroleum export trade is evident from the official figures of the petroleum exports for 1913 which have just been published by the Bureau of Foreign and Domestic Relations. The past twelve months have, in fact, established a remarkable record for American oil exports, for during the twelve months no less a quantity than 2,106,159,259 gallons were sent to the foreign markets of the world, the exported total value being $147,047,187. Compared with the figures of the preceding year, those quoted above show an increase of approximately 150,000,000 gallons and an increased increment of nearly $26,000,000. The enormous increase in the quantities exported is accounted for mainly by the enhanced foreign demand for illuminating oils of over 90,000,000 gallons. Full details will be found upon another page of this issue.

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**Developing the Maikop Field.**

WE would commend the careful perusal of the report of the meeting of the Black Sea Oil fields, which will be found in the current issue of the REVIEW, for a study of the facts there prominently put forward—we refer particularly to the speech of Mr. George Tweedy—will go a great way to removing the false impression which has been created as to the outlook for the Maikop field. As we have previously pointed out, the drilling of a few wells in any one district cannot fully prove or condemn a prospective oilfield, and though many pessimists have taken their cue from the disappointments which have been experienced in several directions in Maikop, the fact remains that when one takes into account the finance actually utilised in sinking wells in the Maikop field, the surprise is that the region has such a substantial crude oil output as it has to-day. Mr. Tweedy estimates that not more than £320,000 has been spent upon drilling wells in the field, but, even putting the amount at half a million pounds sterling, Maikop has even then more than justified the claims held out for it. In fact, the future of Maikop is distinctly bright.

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**Petroleum Legislation in Galicia.**

IN view of the great interest which English capital is now taking in the development of the Galician petroleum industry, it will be interesting to our readers to have some information regarding the legislation upon petroleum matters in that country. The first legislation on this subject is included in the general law on mines, made by Maximilian II. in 1575, according to which the owner of any property had the full right and privilege of exploring and exploiting the underground mineral substances deposited on his property. The mining law of 1854 did away with this privilege and distinctly separated the surface from the underground, granting to the explorer who was the first to prove the exploitability of any area the right to all the mineral substances found in this area ; but in January, 1862, the same law gave the privilege of the first exploration and exploitation for mineral oils, ozokorite, and all bituminous substances to the owners of the surface. In 1884 when the introductionof the Canadian boring system commercially advanced the exploitation of petroleum in Galicia, an imperial law was promulgated confirming that of 1862 as regards petroleum, mineral goudron, ozokorite, mineral wax, bitumen, asphalt and generally all mineral substances containing mineral resins and petroleum. Thus the owners of the ground have finally been endowed with the right of all bituminous substances found under their ground.

## MOTOR VESSEL "SEBASTIAN."

ON Wednesday the "Sebastian," which was launched from the yard of the Caledon Shipbuilding Company, of Dundee, last April, was taken for a successful trial at sea, when she fully maintained her contract speed. The vessel has been constructed to carry oil in bulk, and to conform to the Suez Canal Regulations. She is built to Lloyd's highest class under the three-deck rule, and both hull and machinery are being constructed under the supervision of Messrs. Flannery, Baggallay & Johnson, Limited, consulting engineers to Messrs. Lane & Macandrew.

The vessel is fitted with two polar Diesel motors constructed by the Aktiebolaget Diesels Motorer of Stockholm, and are placed at the aft end of the vessel. They consist of two sets of two-cycle motors, six cylinders each, and the usual accessories of air compressors, etc., each engine to develop a brake horsepower of 800 on a small number of revolutions. The auxiliary gear is partly run by auxiliary Diesels and partly by steam, for which latter purpose there are two multitubular marine type boilers, one placed in the engine room and one on deck. These boilers also burn liquid fuel. The oil cargo is dealt with by two large Hayward Tyler pumps and the usual deck steam auxiliary machinery. The vessel has oil bunkering capacity for a long voyage.

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## OIL SHALE DEPOSITS IN SOUTH AFRICA.

CONSIDERABLE interest has been created in London oil circles by the arrival of some samples of crude petroleum and oil shale from South Africa. Oil shales have of course been known to exist within the Union for a considerable time past, but it has certainly come as a surprise that shale of such commercial value exists, either in South Africa or elsewhere, within the British dominions. From one particular district shales have been obtained, which, on analysis, have yielded as high as 85 gallons of crude oil to the ton; whilst from several other areas a general yield of 60 gallons to the ton is shown. The REVIEW understands that the properties are conveniently situated for both rail and shipment purposes, and that investigations, already carried out by engineers of repute, have resulted in the statement that an abundant supply of the material is in evidence and can be readily mined. From the average English point of view, the petroleum discovered is perhaps of greater interest. The oil is of excellent quality and has been obtained from a district which up to the present has not been proclaimed broad cast as being likely to prove petroliferous, although it appears small quantities of oil have been taken therefrom, and used by local farmers for some time past. The locality is one which will enable the product to be run into the chief mining centres and the eastern ports with comparative ease.

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**Mr. D. A. Sutherland.**—Our readers will be pleased to learn that Mr. D. A. Sutherland, after having been incapacitated for several weeks owing to pneumonia, has now reached the convalescent stage, and expects to be sufficiently restored to health to attend to his professional duties in a fortnight's time.

## OILFIELD MANAGEMENT.

OILFIELD manager, highest qualifications and testimonials, seeks re-engagement in any part of the world. Just returned from the Far East. Young, energetic and thoroughly competent. Several languages. Write, Box "Black," care REVIEW, 45, St. Mary Axe, E.C.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended February 7th was 131,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended February 8th was 296,620 poods, or about 4,784 tons. The total production for the year from January 14th to February 8th was 1,078,170 poods, or about 17,390 tons. The total production for the corresponding period last year was 986,825 poods, or about 15,917 tons. Price of crude oil at Baku is now 38 copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended February 7th was 25,352 poods, or 409 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended February 8th was 98,200 poods, or 1,583 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended February 7th was 118,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended February 7th was 22,810 poods (368 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended February 7th was 6,600 poods (106 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended February 8th was 13,447 poods, or 217 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended February 7th, 127,375 poods, or 2,054 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The latest production for week ended February 10th was 349,402 poods, or 5,635 tons. Corresponding period last year, 1,603 tons.

BIBI-EIBAT OIL COMPANY, LTD.—Production for the week ended February 8th was 86,133 poods, or 1,389 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended February 7th was 4,400 poods, or 71 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended February 7th was 19,198 poods (309 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended January 31st was 995 poods (16 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended February 7th was 3,300 poods, or 53 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone City 8840 (4 lines).
LONDON, E.C.

# INTERESTING TRIAL TRIPS AND LAUNCHES.

## The Eagle Oil Transport Company's Tankers "San Jeronimo" and "San Lorenzo" have their Trials, and the "San Wilfrido" and "San Zeferino" are Launched.

### SPECIAL AND EXCLUSIVE REPORT.

THE present week has been a memorable one in connection with the bulk ocean transport of petroleum products. It has been memorable in two ways. In the first place, two of the largest oil-tankers in the world, each of over 15,000 tons capacity, have successfully passed through their trials in the North Sea, and two vessels, each carrying over 9,000 tons of oil, have been launched. In the second place—and what is, perhaps, more important—is the fact that the whole of the tonnage (exceeding 50,000) has been built to the order of one firm, the Eagle Oil Transport Company, Ltd.

A year ago the gigantic fleet of the Eagle Oil Transport Company—that influential concern which has for its object the transporting to the markets of the world the petroleum products of the Mexican Eagle Company (products which are marketed in this country by the Anglo-Mexican Petroleum Products Company, Ltd.)—was in the earliest stages of its existence. To-day, counting the two trial trips and the two launches which have taken place during the present week, of its total fleet of twenty bulk oil carriers (one-half of which comprise vessels of over 15,000 tons capacity), thirteen are in commission, three will shortly be having their trial trips, and four only remain on the stocks. The record thus achieved by the Eagle Oil Transport Company in the getting together of its immense fleet, finds no parallel in the annals of ocean oil transport, and at the same time reflects the greatest credit upon those gentlemen who, as directors of the company, have organised and seen to the successful carrying through of such a unique programme.

On Tuesday the trial trips of the "San Jeronimo" and the "San Lorenzo" took place off the Tyne, a numerous party of invited guests being on board the first-mentioned tanker at the invitation of the directors of the owners of the vessel—the Eagle Oil Transport Company, Ltd. Those of our readers who have followed the various phases in the construction of this company's immense fleet will recollect that the "San Jeronimo" was launched on December 13th from the Sunderland yards of Messrs. William Doxford & Sons. In structural details the tanker follows the lines adopted in the whole of the other vessels of similar size, which are built or in building for the same company. The vessel has a capacity—like that of the "San Lorenzo" and her sister ships, the "San Fraterno" and "San Gregorio," the "San Hilario," and the "San Isidoro"—of over 15,000 tons, and is fitted with engines aft. Her length over all is 540 ft., and her extreme breadth 66½ ft., while she has a moulded depth to shelter deck of over 41 ft.

The s.s. "San Lorenzo," taken from the deck of the "San Jeronimo."

Messrs. William Doxford & Sons have not only been responsible for the building of this vessel, but have engined it also, the tanker being the largest that has yet been built on the Wear. The vessel is constructed upon the now well-known "Isherwood" principle of longitudinal framing, and has a complete shelter deck. The immense cargo is carried in twelve holds, which are divided longitudinally by an oil-tight bulkhead, and separated from the remainder of the vessel by cofferdams. A central expansion trunk of the usual form is provided between the main and upper decks, and extends for the full length of the lower holds. The spaces at the sides of the main expansion trunk are utilised for carrying oil fuel, and are provided with separate expansion trunks extending through the shelter 'tween decks.

Mr. John Purdy (right) and Mr. A. Coates (left) on the "San Jeronimo."

The necessary supply of fuel oil for the boilers is carried in a large cross bunker aft, in a deep tank forward, and at the sides of the main expansion trunk. This arrangement materially simplifies the trimming of the vessel, as the centre of gravity of the ship is not then greatly affected as the fuel is consumed. A large towing winch is fitted aft for towing ocean-going oil-barges, and unlike the arrangement in other tankers, this is under complete cover. The "San Jeronimo" is capable of towing a barge carrying 5,000 tons of oil, but we learn that this arrangement has been provided simply in the case of an emergency.

The ventilation throughout is mechanical, and includes large fans and special arrangements to ensure safety in connection with the oil-burning apparatus. In this connection, it should also be noted that the oil-cargo pumps, which have been supplied by Messrs. Hayward, Tyler & Co., are located in an isolated pump room. The oil pumping installations in the vessel are the largest ever fitted on oil-carrying steamers, and are specially adapted for dealing with heavy oil. The pumps are located in two pump rooms, and an arrangement of heating coils is fitted in the oil holds on the most up-to-date principle. The accommodation is very complete for a vessel of this type, and includes a hospital and cold store room for provisions. Marconi wireless telegraphy installations are provided and everything that practical nautical experience could suggest has been embodied, even to the extent of gauze doors as a protection against the mosquito worry in the tropics.

The gigantic size of the "San Jeronimo" dwarfed all the other vessels in the Wear as she lay opposite Martin's Dock taking on some 200 tons of Mexican fuel oil preparatory for her trial trip and her journey to Thames Haven. As a matter of fact, the vessel is the largest yet built upon that river.

Among the gentlemen present at the trial trip were Mr. John Purdy (director of the Eagle Oil Transport Company, Ltd., and the Anglo-Mexican Petroleum Products Company, Ltd.), Captain H. Tucker (marine superintendent of the Anglo-Mexican Petroleum Products Company), Captain Cox (marine superintendent of the Eagle Oil Transport Company), Mr. L. Conford Davis (Lloyds), Mr. A. Coates (director of the Whessoe Foundry Company, Darlington), Mr. Barringer and Mr. Patton (Messrs. Jacobs & Barringer), Engineer-Lieutenant Brown and Lieutenant Vincent (on behalf of the Admiralty), Mr. Hamilton (Messrs. Wier), Messrs. Temple and G. M. Gibbins (Hayward Tyler), Mr. A. F. Bailie (Anglo-Mexican Petroleum Products Company), Mr. E. W. Delacour (the publicity manager of the Anglo-Mexican Petroleum Products Company), and a large number of Press representatives.

Mr. Smith, the "San Jeronimo's" chief officer, late of the Royal Naval Auxiliary Fleet, conducted the party over the vessel, while afterwards Mr. Barringer explained to the visitors the various mechanical details in connection with the engines and the liquid-fuel-burning apparatus, the latter being on the well-known system of Howden's forced draught. The cleanly appearance of the boiler room, combined with the comparatively cool atmosphere prevailing therein, were commented upon by several members of the party, and the ease with which the steam pressure was increased by the simple act of lighting another oil fuel burner

The stoke-hold of the s.s. "San Jeronimo," showing the oil-fired boilers. Mr. Barringer on the left.

(there being four to each furnace) was indeed a revelation to those who had not previously made a close inspection of the vastly improved condition of things which now prevails wherever oil fuel is utilised for steam raising purposes.

While the "San Jeronimo" was taking in her cargo of water ballast off the Tyne at the rate of over 3,000 tons per hour, prior to the trip over the measured mile, several brief yet interesting speeches were made in the ship's saloon, Mr. Arthur Doxford presiding.

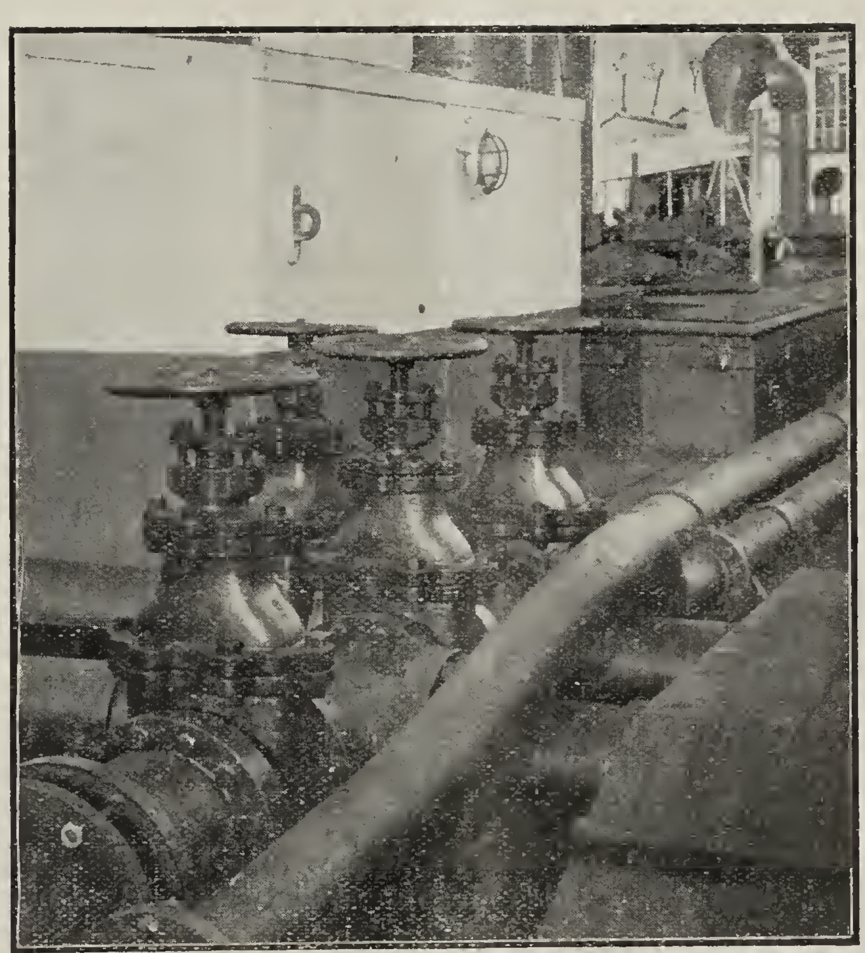
The "San Isidoro" lying off the Walker yards preparing for her trials. Photo taken from the deck of the "San Wilfrido."

In proposing the toast of "The Owners of the 'San Jeronimo,'" Mr. Doxford, on behalf of his co-directors, reminded the company that that vessel constituted a record for the Wear, and at the same time was one of the largest vessels in the world for the carrying of bulk oil. It was the first oil-tanker, he continued, that his firm had built, and he took it as a great compliment that the Eagle Oil Transport Company had entrusted them with the order for such an enormous boat in the building of which they had had no experience. He desired, however, to express Messrs. Doxford's thanks and gratitude to Messrs. Jacobs & Barringer for the most generous way in which they had helped them in every possible manner. Therefore in asking the company to drink success to the "San Jeronimo" he coupled with the toast the name of Mr. Purdy (one of the directors) and also Messrs. Jacobs & Barringer.

The toast having been duly honoured, Mr. Purdy replied in a neat speech. After having returned thanks for the way in which the health of the ship's success had been drunk, he said his company were proud of the fact that that vessel constituted a record for the Wear. His company had been very pleased to place the order for that tanker with Messrs. Doxford, and he was also pleased to think that their confidence had not been misplaced, for the builders had undoubtedly turned out a splendid vessel for the owners. That week, proceeded Mr. Purdy, constituted a record from the number of trial trips and launches which were to take place for the Eagle Oil Transport Company, for over 50,000 tons would be represented in the two trial trips and the two launches. He had reason to believe that the boats of their Company were the most up-to-date boats in the world, for the owners had spared no expense in order to get the best of everything, and where they found things could be improved, they had them improved. That had been their policy from first to last. He sincerely hoped the Eagle Company's fleet of oil-tankers would have a successful career; in fact, he had no doubt about it at all. The consumption of oil was increasing in a remarkable degree all the world over, and therefore the future was particularly bright for all concerned in the industry. He wished to endorse the remarks as to the great attention which Messrs. Jacobs & Barringer had paid to the detail in those immense tankers. He was confident that his co-directors felt that they had done their work in a really first-class manner and to their entire satisfaction.

Mr. Barringer replied on behalf of his firm, mentioning that they had been connected with the building of seventy oil-tankers in addition to a great many other vessels. He appreciated the compliment paid by Mr. Doxford, but could assure those present that the builders for their part had done everything they possibly could to turn out a vessel which would be equal to any of those built by builders of more experience.

Mr. Purdy then proposed the continued prosperity of the builders of the "San Jeronimo"—Messrs. Doxford, mentioning that the vessel reflected the greatest credit upon them. Mr. A. Doxford acknowledged the toast.



A group of pump valves on the deck of the "San Jeronimo."

The "San Jeronimo" then proceeded upon her trials, and in these the tanker was very successful, the contract speed being materially exceeded. Later in the evening the guests were transferred to a tug which put in at North Shields, the "San Jeronimo" proceeding at full speed to Thames Haven, where she arrived on Thursday morning.

The "San Lorenzo," another 15,000-ton tanker for the same owners, and built by Messrs. Swan, Hunter & Wigham Richardson, Ltd., successfully passed through her trials on the same day off the Tyne, proceeding later to Mexico for a fuel-oil cargo.

On Wednesday afternoon a large and influential company assembled at the Walker shipyard of Sir W. G. Armstrong, Whitworth & Co., Ltd., to witness the launch of the large screw oil-tanker "San Wilfrido," built to the order of the Eagle Company. The guests were received by Colonel R. Saxton White, and prior to the launch were conducted over the extensive yards of the firm, an opportunity being afforded the visitors of seeing oil-tankers in the building.

The christening ceremony was performed in a very graceful manner by Mrs. Thory Page Gardiner, who was accompanied by her husband, the Rev. T. G. Gardiner, of Lambeth Palace, a close personal friend of Lord Cowdray. The "San Wilfrido" took the water to the accompaniment of loud cheering from the hundreds of onlookers, after which the launching party adjourned to the dining room in the offices of Messrs. Armstrong, Whitworth & Co., where refreshments were served.

Colonel R. Saxton White, in asking the company to drink to the success of the "San Wilfrido," said she was the fifth ship they had had the pleasure of building for Messrs. Pearson, and the fourth one for the Eagle Oil Transport Company. She was a vessel to carry 9,500 tons of oil cargo and she would have a speed of about eleven knots. The contract which the speaker had the pleasure of entering into with Lord Cowdray on behalf of the Eagle Oil Transport Company was for the building of six oil-tankers, three of which were for the transport of 15,000 tons cargo, and the rest for carrying 9,500 tons each per trip. They had launched the three smaller boats and one 15,000 tonner, the remaining two large tankers being still under construction. He was sure they all reciprocated the very optimistic and sanguine views expressed by Lord Cowdray in his recent address before the shareholders of the Eagle Company. Lord Cowdray expressed no regret at having ordered ships of a size which hitherto were unknown for the bulk carriage of oil, and the speaker felt convinced that such immense tankers could far more economically carry oil cargoes than tankers of smaller dimensions. He thought Lord Cowdray deserved the congratulations of all for the very bold step he took when he ordered a fleet of some twenty large oil-tankers. He therefore asked the company to heartily drink to the success of the "San Wilfrido," with which toast he coupled the name of Mrs. Gardiner and also Mr. John Purdy. Mrs. Gardiner had performed the launching ceremony in the most graceful manner, and, as they possibly knew, Mr. Purdy was the manager of that great concern in whose interests the gigantic fleet of oil tankers was being built. As a small reminder of that interesting occasion, he asked Mrs. Gardiner to accept a replica of an old Northumbrian cup.

Mr. White then handed to Mrs. Gardiner the present, which was a massive silver stem cup, standing over 18 in. high, the toast being heartily honoured.

Mr. Purdy, in replying on behalf of the Eagle Oil Transport Company, agreed that it was a bold experiment to order so many large oil tankers, but he was pleased to say that the results which had been obtained by the boats already in commission had more than justified Lord Cowdray's action, and he had no fear whatever that in the future equally good results would be achieved, if not better than those of the past. He then asked Mrs. Gardiner to accept a silver model of one of the old Drake flagships as a memento of the occasion.

On behalf of Mrs. Gardiner, the Rev. T. G. Gardiner suitably acknowledged the handsome presents. That day, he said, would long live in their memories as one of the happiest they had spent. It had also been of exceptional educational merit, for they had been privileged to meet face to face one of the most important British industries—that of shipbuilding, and at the same time they had had an insight into north country kindness. The rev. gentleman then proceeded to say that, having known Lord Cowdray for a great number of years, he had heard of his several projects possibly long before they were publicly known. Lord Cowdray was to be admired for his enterprise in building such an immense fleet of oil ships, and the speaker was sure he was echoing the sentiments of all present when he said they all hoped such enterprise would be adequately rewarded by success.

**The Rev. T. G. and Mrs. Gardiner at the Launch of the "San Wilfrido." Col. Saxton White on the left.**

The health of the builders was then honoured, to which toast Colonel White suitably responded. and this concluded the interesting proceedings.

On Thursday afternoon another of the Eagle Oil Transport Company's fleet of oil-tankers was launched, this being the "San Zeferino," built by the Palmer Company at their Hebburn yards.

The "San Zeferino," which is 420 ft. long, will carry about 9,300 tons deadweight, and has been built on the Isherwood system of framing, to class 100 A1 Lloyd's Special Survey, for the carriage of oil in bulk, and is in accordance with Suez Canal requirements.

The ceremony of naming the vessel was performed by Mrs. J. H. Macdonald, wife of one of the directors of the Anglo-Mexican Petroleum Products Company, Ltd., Mrs. Macdonald afterwards being presented with a silver-gilt inkstand by Mr. H. C. Broadhurst, secretary of Messrs. Palmers, as a momento of the occasion, while from Mr. John Purdy, as representing the owners, she received an elaborate model of an old sailing ship.

# PROGRESS IN ROUMANIA DURING 1913.

## DETAILS OF PRODUCTION.

Various regrettable events, such as strikes, war, mobilisation, and consequent demobilisation, considerably retarded the progress of the Roumanian petroleum industry during 1913, but notwithstanding these events, it has come out victorious in its progressive movement. Moreover, it has considerably profited by the intense demand for Roumanian products, especially residuals, of which it produces very large quantities, while but a few years ago they were a burdensome by-product which the refiners did not know how to get rid of. All this is now changed, and the prices for residuals have risen to a great height, and naturally Roumania, being able to dispose of large quantities, has profited thereby.

The rise in the price of products has also caused the prices of crude oil to increase. In view of this, it is quite natural that the attention of the financial world has been attracted towards the Roumanian petroleum ndustry, and during the past year there was a great nflux of foreign, and especially English, capital into he Roumanian petroleum industry. New concerns were formed, and many old ones increased their capital. The end of 1913 brought into Roumania very considerable English interest and the formation of several groups.

Owing to the fortunate results obtained by the Colombia Company, French capital also commences to make some advance in the Roumanian petroleum ndustry. Dutch capital continues to favour this ndustry, while German capital considerably extends he sphere of its already acquired influence, and begins serious movement in order to secure permanent and arge importation from Roumania into Germany by way f the Danube, and in this respect the port of Ratisbon will play an important part and undergo a great evelopment. The total number of companies interested n the Roumanian petroleum industry now amounts to 2, and their total nominal capital to 476,932,136 francs, f which 358,130,500 francs represent the subscribed apital. Besides these, 25 new companies, the great majority of which are English, are in process of being ormed, and their capital will approximately amount o 25,000,000 francs.

In order to satisfactorily answer all these new emands considerable new boring has been undertaken n the oilfields and extensive exploration works have een started on virgin areas. The Runcu district, ituated between Bordeni and Chiciura, was successfully xplored. Petroleum wealth has also been proved at Bustenari-Nord, thus considerably extending towards the orth the district which has played an important part n the development of the Roumanian industry. A ew petroleum area has also been established at Baicoi, pening for new exploitations vast territory in the erbatori district. The rich Moreni district, which at resent is the most important productive district in the whole of the country, has been extended west by means of very rich borings—wells No. 1 Colombia and No. 8P of the Romana-Americana, which have proved the existence of deposits there, capable of a very rich yield in petroleum. Exploration works inaugurated in 1912 at Ceptura were continued during 1913 and show every promise of ultimate success. Unfortunately the great difficulties in the exploration of Filipeshti de Padure have not yet been overcome.

During last year the Roumanian petroleum industry, unfortunately, suffered from great deficiency in means of transport. This question will be to some extent settled during the present year, as the administration of the Roumanian railways has ordered a considerable number of new engines. Thus the final solution of this serious question, will not be arrived at until 1915, when the great State pipeline will be inaugurated.

The total production of crude oil on the fields during 1913 amounted to 1,886,000 tons, of which 1,809,999 tons were obtained by the various public companies, as against 1,722,632 tons obtained by the same companies in 1912, showing an increase in their production of 87,367 tons, or of 5 per cent. It results from these figures that the companies are producing about 96 per cent. of the total production, and the private concerns but 4 per cent. The production of the chief companies during the twelve months was as follows:—

| | Tons. |
|---|---|
| Steaua-Romana ... ... ... | 402,355 |
| Astra-Romana ... ... ... | 444,025 |
| Romana-Americana ... ... ... | 333,231 |
| Colombia ... ... ... ... | 226,778 |
| Concordia ... . ... ... | 83,126 |
| Orion ... ... ... ... ... | 75,273 |
| Roumanian Consolidated Oilfields, Ltd. ... ... ... ... ... | 62,002 |
| International ... ... ... ... | 41,449 |
| Alpha ... ... ... ... ... | 27,887 |
| Nafta ... ... ... ... ... | 23,066 |
| Trajan Roumanian Oil Company ... | 22,623 |
| Aquila Franco-Romana ... ... | 17,700 |
| Anglo-Roumanian Petroleum Company ... ... ... . . ... | 12,973 |
| Maisels Petroleum Trust ... ... | 7,306 |
| Arnhemsche Petroleum Maat ... | 4,377 |
| Petrolul ... ... ... ... | 4,216 |
| Romana Belgian Society ... ... | 3,735 |
| Italo-Romana ... ... ... | 2,146 |
| Stanesti-Tazlau Maat ... ... ... | 1,949 |
| F. F. Oil Syndicate, Ltd. ... ... | 1,564 |
| The Beciu Oilfields ... ... ... | 1,556 |
| Romana... ... ... ... ... | 1,487 |
| The Oil and Drilling Trust of Roumania ... ... ... ... ... | 1,415 |
| Bacau Maat ... ... ... | 1,001 |

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# The Galician Petroleum Industry during 1913.

## DETAILS OF PRODUCTION.

The production of crude oil on the Galician oilfields during 1913 amounted to 1,090,000 tons as against 1,187,000 tons obtained in 1912 and 1,462,940 tons obtained during 1911, thus showing a decrease of 97,000 tons as against the preceding year, and of 372,940 tons as against the figures for 1911.

The above production included 696,141 tons produced on the Tustanowice fields (as against 856,000 tons in 1912), and 195,983 tons obtained on the Boryslaw fields (as against 170,500 tons in 1912), and 197,876 tons produced on the remaining fields (as against 161,000 tons obtained in 1912).

On the Outskirts of the Boryslaw Fields.

Thus the production on the Tustanowice fields has decreased against that of the preceding year by 170,301 tons, and that on the Boryslaw fields has, on the contrary, increased by 25,483 tons. The production of crude oil on the other Galician fields has, owing to more extensive boring activity, also increased. While the result of this increase is far from being proportional to the considerable increase in boring, which latter resulted but in shallow oil, several deep borings (over 1,000 metres), at Popieli and West Galicia have proved unproductive. During 1913 no new territory was opened, which should give hope for a good production in the near future. As yet the only fields with a large commercial production remain those of Boryslaw and Tustanowice, and therefore the Galician producers have resumed extensive boring work in this district, where new borings have been started and old wells are being deepened. Some of these latter have commenced to give a new production, which fact has somewhat shaken the opinion that the district is entirely exhausted. Some of the oldest producing wells, such as Nafta II, Marya, Lilion, Rockfeller, etc., show an extraordinary permanency of production, yielding for many months past uninterruptedly, daily quantities up to 100 tons.

On the other hand, of great importance is the successful completion of some wells of the Karpathen company at Wolanka and of the well No. 4 at Ratoczyn, which opens a further large district close to Boryslaw. Some very hopeful borings have also been finished at Perehinsko, Opaka and Klinkowka, also the oilfield at Rotok and Kroscienko, acquired by powerful French groups are now being extensively developed. The same groups have also acquired wells at Wankowa, Brelikow, and Leszczowate. A Galician group has secured large territories at Grabownica, as well as the old wells at Lipinki, where it intends to establish a large exploitation. On the contrary, the new Schodnica lands, as well as those at Bitkoff have so far not fulfilled the great hopes which were entertained for them.

---

## THE EXPORT TRADE OF ROUMANIA DURING 1913.

The export of petroleum and petroleum products from Roumania during 1913 amounted to 1,036,446 tons, as against 846,423 tons exported during 1912. The above figures include :—

| | |
|---|---|
| Crude Oil ... ... ... | 28,622 tons |
| Residuals ... ... ... | 341,912 ,, |
| Lubricating Oils ... ... | 9,543 ,, |
| Kerosene ... ... ... | 418,622 ,, |
| Benzine ... ... ... | 237,168 ,, |
| Paraffin ... ... ... | 579 ,, |

The increase in the exportation as compared with that of 1912 thus amounts to 190,023 tons or 22½ per cent.

## ROUMANIAN PETROLEUM PRODUCTION DURING DECEMBER, 1913.

The total production of crude oil on the Roumanian oilfields during December, 1913, amounted to 151,858 tons, as against 138,890 tons produced during November, 1913, showing an increase of over 13,000 tons. The production in the various districts was as follows :—

| | |
|---|---|
| Prahova ... . . ... | 129,729 tons |
| Dambovitza ... ... | 4,524 ,, |
| Buzau ... ... ... | 13,638 ,, |
| Bacau ... ... ... | 3,967 ,, |

# DAMAGE BY WATER IN CALIFORNIA OILFIELDS.

**By Messrs. F. McN. HAMILTON (State Mineralogist) and R. P. McLAUGHLIN.**

The subject of conservation of natural resources is of vital importance. Flooding of oil sands by underground water is comparable to a loss of forests by a constantly burning fire, but is not so well realised except by persons directly employed in oil production.

In order that the attention of the public, particularly non-resident owners of oil properties, may be directed to the menace of water entering and ruining the producing oil sands of the California fields it is proposed to state briefly and promptly the conditions existing in the various fields. Such statements will serve a more useful purpose if issued as the data are collected rather than being published at the end of a year, along with other information which is aimed to cover all branches of the industry.

The fact that a single field will be dealt with in each of these short reports must not be construed to mean that such a field is the only one in which serious conditions prevail. On the contrary, the menacing condition exists in many of our fields, and the reason that separate reports will be issued is that valuable time may be saved to the industry.

All of these investigations made by the State Mining Bureau will be with the sole purpose of constructively aiding the industry. Operatives throughout the State are urged to assist by furnishing information when it is requested. It is my firm belief that the California oil men possess the ability to cope with the physical conditions, and the aim of the State Mining Bureau will be simply that of gathering the information gained by the experience of individuals, and placing it at the disposal of all. Suggestions leading to improvements of this service will be welcome.

The Coalinga field was visited in December, 1913, and the information gathered then, along with that obtained by personal experience there during the past five years, furnishes the basis for this report. It is pleasant to record that the necessary assistance and information was cheerfully furnished by every person approached.

Water conditions in this field are no more serious than in some of the other important fields, which are to be described later when they are visited and the latest development noted.

Briefly stated, the oil sands of Coalinga are from 100 to 400 feet total thickness, lying in the form of more or less continuous sheets or strata which extend over a proven area approximately fifteen miles long and two miles wide. The several sands making up the total thickness are separated by clay beds from 10 to 50 feet in thickness. The dip of these formations varies from 20 to 40 feet per 100. Over 1,000 wells are producing at depths varying from 700 to 4,000 feet. The wells cost from $4,000 to $70,000 each. Similar to those beds carrying the oil are others bearing water. These water sands are sometimes above, below and between the oil sands. When water and oil sands are both penetrated by a well the water enters the oil sand. The water frequently forces the oil back into the sand, so that pumping produces nothing but water. Besides the damage done at the well where the water first breaks in, it spreads to neighbouring wells, and causes their product to become partly or entirely water. The probability of such damage is usually foreseen and the method of its prevention is to insert screw pipe (or casing) in the well. It serves as the lining or wall of the well, and if carried through and below the water sand and firmly landed in some sort of impervious stratum, such as clay, it prevents the water from leaking down into the well. Sometimes it is necessary to pump cement in behind the casing in order to thoroughly seal the passages down which the water might otherwise run. Several such lines (or strings) of casing are sometimes required inside the first one until they all resemble a telescope with the small end at the bottom of the well, in the oil sand.

The problem therefore, has two separate branches: first, determining where the casing should be landed; and, second, the actual work of placing it in a workmanlike manner in the well. Either one of these branches is useless without the other.

As the oil and water sands are concealed from view by their great distance below the surface of the ground, records of the formations encountered in previously drilled wells is the only method of determining their position in new wells. Bearing in mind the size of the territory and great number of wells, together with the fact that natural underground connection transfers the damage from one well to another and eventually injures or destroys the entire field, it will be seen that the problem of determining where new strings of casing should be landed may be fairly called a "man-sized job." It can be done only by keeping accurate record of every well and patiently working out its relation to all those surrounding it. How this has been attempted and the results obtained is the purpose of this writing.

Since February, 1913, the position of County Oil Well Commissioner for Fresno County has been occupied by a graduate engineer who has had a number of years' experience in the oil business. Appointment to this position is made by the county supervisors. The annual cost to the county is $2,700 per year. The county derives one-eighth of its revenue from the Colinga fields. Immediately after taking the position the Commissioner introduced the following system: An office room at a central location was obtained where he has collected and filed practically all of the well logs, along with numerous detailed drawings which he has made. Besides these, he has on file reports from various companies showing the percentage of water coming from their wells. These records are open to the inspection of operators, with proper safeguards for keeping confidential such records as do not concern the public. These records were freely opened to the writer as a representative of the State Mining Bureau and some of the following facts were ascertained from them.

There are about sixty superintendents in the field. Of these an overwhelming majority have actively co-operated with the Commissioner in his efforts to better conditions. In fact there has been but a single case of opposition, and that from the representative of a comparatively small concern.

Attention is particularly directed to the following figures :—

West Side Field (total, 732 wells).—Wells reported, 340 ; Wells making 10 per cent. to 50 per cent. water, 68 (20 per cent. of those reported) ; Wells making over 50 per cent. water, 13 (4 per cent. of those reported) ;

East Side Field (total, 369 wells).—Wells reported, 113 ; Wells making 10 per cent. to 50 per cent. water, 29 (25 per cent. of those reported) ; Wells making over 50 per cent. water, 4 (5 per cent. of those reported).

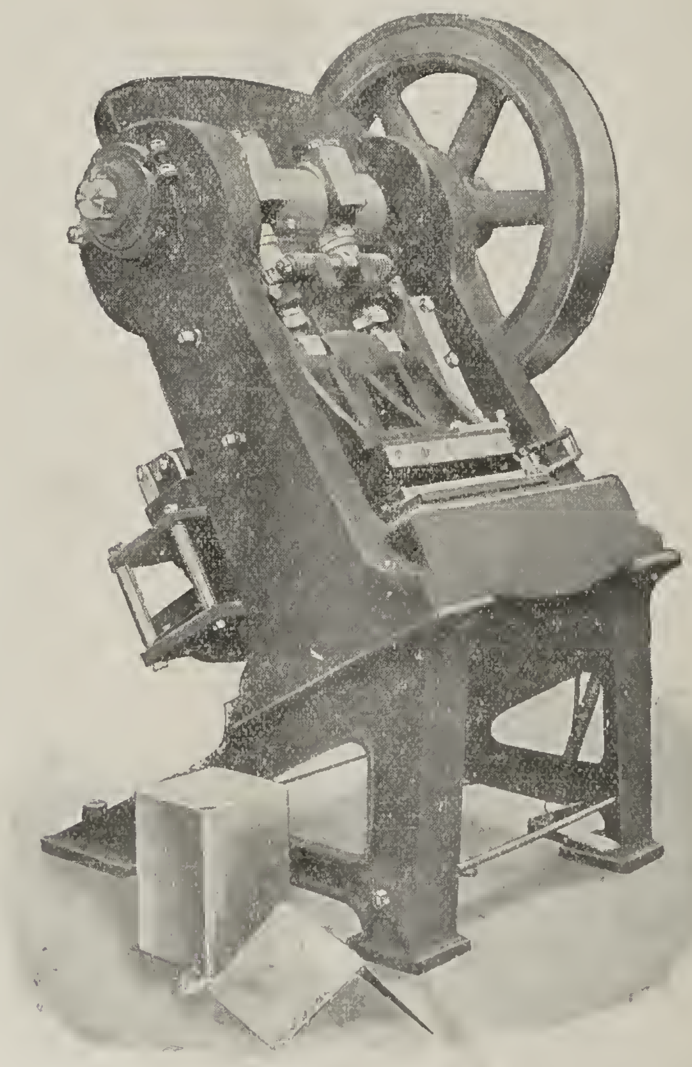
These figures show that of the 41 per cent. of the wells reported to the Commissioner there are 25 per cent. producing over 10 per cent. water. That the percentage would be higher if all the wells were reported there is little doubt.

The seriousness of the condition is well shown by the fact that the writer was informed by the president of one of the large operating companies that unless water troubles were remedied it would probably force his company to stop operations. Should such action become general the field would be irreparably injured, as a idle well making water turns all of it into the oil sands, upon which sands the life of the industry depends.

Here is one instance of how the damage works out in dollars and cents. : A certain property has a well about 2,700 feet deep. It was drilled about three years ago at a cost of about $30,000. Initial production was over 200 barrels of oil per day, and it has produced a total of about 100,000 barrels of oil, giving a profit of possibly $10,000. About a year ago water stopped this production almost entirely. The owners are financially unable to repair the well at present, and each day adds to the damage it is doing to surrounding property.

Fortunately, it has been actually demonstrated that there is a definite remedy for these conditions, which would otherwise mean the absolute destruction of the oil industry in California. For several years a number of men in this field have been ceaselessly working towards a means of applying the remedy. One of their results is that of having a man placed in the position of oil-well commissioner, who systematically gathered and arranged evidence in a form useful to superintendents. Public opinion had to be led from the idea that nothing but a knowledge of the use of drilling tools was necessary or desirable to the fact that *the gathering and patching together of evidence is the prime necessity*, supplemented by knowledge of practical methods. It is gratifying to those who advocated the plan in operation for the past year at Coalinga to be able to point to the following actual demonstration that it gets good results.

(*To be concluded.*)



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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | $\frac{5}{8}$-$\frac{11}{16}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-1$\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/3-7/3 |
| European Oilfields ... ... | 319,181 | 10/- | 5/9-6/3 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 30/3-31/3 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 35/0-35/6 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 20/6-21/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{3}{8}$-1$\frac{1}{2}$ |
| " " Ord... | 690,000 | fully pd. | 14/9-15/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5$\frac{9}{32}$-5$\frac{11}{32}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{2}$-10$\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/6-23/0 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 714 | 716 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,200 | 3,225 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,650 | 19,750 |
| Nobel Bros. (Issue 1912)... ... ... | 250 | 1,015 | 1,018 |
| Russian Naphtha Society ... ... | 100 | 266 | 268 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 248 | 250 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 35/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 87/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 42/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 36/3 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 22/6 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/6 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 5$\frac{1}{2}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 10/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 71/0 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) ... ... ... ... ... ... | 1/6-2/0 |
| Anglo-Persian Preference (£1)... ... ... ... | 21/0-22/0 |
| Anglo-Terek (£1)... ... ... ... ... ... | 0-$\frac{1}{8}$ |
| Baku (10/- Shares) ... ... ... ... ... | 5/6-6/0 |
| Batavia (£1) ... ... ... ... ... ... | 19/6-20/6 |
| Black Sea Ordinary (£1) ... ... ... ... | $\frac{5}{32}$-$\frac{7}{32}$ |
| " Preference (£1) ... ... ... ... | $\frac{1}{4}$-$\frac{5}{16}$ |
| British Borneo Petroleum Syndicate (10/-) 9/- paid... | $\frac{1}{2}$-$\frac{9}{16}$ |
| British Burmah Petroleum (£1) ... ... ... | 5/0-5/6 |
| British Maikop (2/-) ... ... ... ... ... | 1/0-1/3 |
| California (£1) ... ... ... ... ... ... | 5$\frac{3}{4}$-6$\frac{1}{4}$ |
| California Petroleum Preference ($100) ... ... | 63-68 |
| Cheleken (£1) ... ... ... ... ... ... | 1$\frac{19}{32}$-$\frac{21}{32}$ |
| Chijoles (£1) ... ... ... ... ... ... | 1-$\frac{1}{8}$ |
| Constantine (10/-) ... ... ... ... ... | $\frac{5}{16}$-$\frac{7}{16}$ |
| Copan Oilfields ... ... ... ... ... ... | 5/0-5/6 |
| Cyprus Oil Trust (2/-) ... ... ... ... ... | 2/0-2/6 |
| Eagle Transport Preference (£5) ... ... ... | 5$\frac{1}{8}$-5$\frac{1}{4}$ |
| Egyptian Oil Trust "A" (£1) ... ... ... ... | 2-2$\frac{1}{2}$ |
| Emba Caspian (£1) ... ... ... ... ... | $\frac{9}{16}$-$\frac{11}{16}$ |
| Galician Oil Trust (10/-) ... ... ... ... | 4/0-5/0 |
| Hungarian National (£1) ... ... ... ... | $\frac{1}{2}$-$\frac{3}{4}$ |
| International Russian (5/-) ... ... ... ... | 1/1$\frac{1}{2}$-1/4$\frac{1}{2}$ |
| Kansas-Oklahoma (£1) ... ... ... ... ... | $\frac{11}{16}$-$\frac{13}{16}$ |
| Kazan Oilfields (£1) ... ... ... ... ... | 1-1$\frac{1}{8}$ |
| Kern River (10/-)... ... ... ... ... ... | 7/0-7/6 |
| Lagunitos (£1) ... ... ... ... ... ... | 3/9-4/9 |
| London Oil Syndicate (£1) ... ... ... ... | $\frac{7}{8}$-1$\frac{1}{8}$ |
| Maikop Premier (£1) ... ... ... ... ... | 12/6-13/6 |
| Maikop Pipe Line (£1) ... ... ... ... ... | 3/6-4/0 |
| Maikop Spies (10/- Shares) ... ... ... ... | 1/0-2/0 |
| Mexican Eagle Common ($10) ... ... ... ... | 2-2$\frac{1}{16}$ |
| Mexican Eagle Preferred ($10)... ... ... ... | 2$\frac{3}{32}$-2$\frac{5}{32}$ |
| Mexican Petroleum 6 per cent. Bonds... ... ... | 95-100 |
| New Caucasian (10/-) ... ... ... ... ... | 1/9-2/3pm |
| New Oil Properties (£1)... ... ... .. ... | $\frac{7}{8}$-1 |
| Oil Development Trust (2/-) .. ... ... ... | 1/0-1/6 |
| Oil Shale Development (5/-) ... ... ... ... | 4/1$\frac{1}{2}$-4/4$\frac{1}{2}$ |
| Oilfields of Mexico (£1. 0s. 10d.) ... ... .. | $\frac{1}{8}$-$\frac{1}{4}$ |
| " " Preference ... ... ... ... | $\frac{1}{2}$-$\frac{3}{4}$ |
| Oklahoma (£1) .. ... ... ... ... ... | 17/9-18/9 |
| Pacific Petroleum (£1) .. .. ... ... ... | 23/6-24/6 |
| Premier Oil and Pipe Line (£1) ... ... ... | 5/1$\frac{1}{2}$-5/7$\frac{1}{2}$ |
| Ratoczyn (£1) ... ... ... ... ... ... | 2$\frac{7}{16}$-$\frac{9}{16}$ |
| Red Sea Oilfields (£1) ... ... ... ... ... | $\frac{19}{32}$-$\frac{21}{32}$ |
| Russian General Oil Corporation (£1) ... ... | 1$\frac{3}{4}$-$\frac{7}{8}$ |
| Santa Maria of California Ordinary (£1) ... ... | 17/0-18/0 |
| " " Preferred (£1) ... ... | 1$\frac{5}{32}$-$\frac{7}{32}$ |
| South Caucasian (£1) ... .. ... ... ... | 1$\frac{3}{8}$-$\frac{5}{8}$ |
| Suez (£1) ... ... ... ... ... ... ... | 4/3-5/3 |
| Suvoroff Taman Oilfields (£1) ... ... ... ... | 16/0-16/6 |
| Tampico-Panuco (5/-) .. ... ... ... ... | 8/3-8/9 |
| Traian (Roumanian) (£1) ... ... ... ... | $\frac{3}{4}$-$\frac{7}{8}$ |
| Trinidad (£1) ... ... ... ... .. ... | $\frac{7}{16}$-$\frac{9}{16}$ |
| Ural Caspian (£1) ... ... ... ... ... | 2$\frac{1}{2}$-$\frac{9}{16}$ |
| Venezuelan Oil Concessions (£1), 15/- paid ... ... | 2$\frac{17}{32}$-$\frac{21}{22}$ |
| West Ural (£1) ... ... .. ... ... ... | $\frac{3}{8}$-$\frac{1}{2}$ |

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— THE —
**PETROLEUM REVIEW,**
*45, St. Mary Axe, LONDON, E.C.*
**American Office: 111, Broadway, New York.**

Saturday, February 14th, 1914.

## GOVERNMENT ROYALTY PLOTS AT BAKU.

THE unfortunate lessees of Government oil-lands at Baku have just received an unpleasant reminder of the precarious conditions under which they hold their properties. When oil prices are low it is obviously impossible, with royalties ranging up to 50 per cent. of the production, to work these plots at a profit. If there be only a slight margin above actual working cost it is promptly appropriated by the Government, and unless the unfortunate lessees are possessed of capital, or in a position to borrow, they must naturally default as regards the balance of the royalties. This was the experience of many of the lessees a few years ago, when they were only saved from the confiscation of their properties by the knowledge that the Government itself could not work them without heavy loss. Then followed a recovery in oil prices and a fair margin of exploitation profit, and lessees began to hope that they might be able to put their properties in order with a view to increasing the output. These, however, are not the methods of the Russian Government when dealing with the occupants of Crown lands; it "smells" money about, and, as a consequence, must have it.

Not the slightest recognition is or ever has been made by the Government of the difficulties under which the lessees have been working in recent years, the situation being wholly different to what it was when the leases were originally granted some fifteen to twenty years ago.

The various firms and companies that fell into arrear with their royalties a few years ago have just received notice that within one month they must forthwith begin to pay off these arrears with 6 per cent. interest and a 10 per cent. fine.

In explanation of the subjoined table it should be explained that the Government, under a law of July 25th, 1912, had the power to exempt lessees from payment of arrears in cases where the latter could satisfy the department concerned that the arrears had been incurred through no fault of their own—as though some of the lessees would default from choice. It will be gathered from the figures given below that some of the delinquents have not failed to avail themselves of the facilities for securing exceptionally favourable treatment under this elastic law:—

| Firm. | Plot. | Exemptions. | Arrears, Fines, etc. | Date for Final Payment. |
|---|---|---|---|---|
| | | Rs. | Rs. | |
| Aramazd Co. ... | 5 S. 1 B.E. | 35.347 | 173.148 | July 1. 1914 |
| Baku Russian ... | 36 S. 36 B.E. | — | 241.962 | Jan. 1. 1915 |
| Caspian Society ... | 3 S. | 15,158 | — | — |
| Mitrofanoff ... | 53 | — | 228.900 | Jan. 1. 1921 |
| Bibi Eibat Pet. ... | 2. 48. 50 B.E. | — | 410.426 | July 1. 1915 |
| Shagidanoff ... | 74 S. | 521 | — | — |
| Russ. Nap. Prod. Co. | 7 B.E. | — | 1,639.866 | Jan. 1, 1919 |
| I. B. Pitoeff & Co. | 25 B.E. 56 R. | 430.940 | 228.560 | July 1. 1914 |
| Mirzoeff Bros. ... | 26 B.E. | 119,857 | — | — |
| Moscow Volga Co. | 17 B.E. | 44.163 | — | — |
| Lianosoff & Co. ... | 17 B.E. 45 B.E. | 814,972 | 401.742 | Jan. 1. 1918 |
| Naphthalan Co. ... | 47. 49 B.E. | — | 303.377 | July 1. 1915 |
| Lianosoff ... ... | 54 B.E. | — | 426,463 | Jan. 1. 1917 |
| Avan Ubasheff ... | 51 B.E. | 413.292 | — | — |
| Krasilnikoff ... | 55 R. | 42 | — | — |
| Schibaieff Co. ... | 9 B.E. | 46.262 | — | — |
| Bacht Co. ... ... | 54 S. | — | 74.172 | Jan. 1. 1917 |

The arrears, fines, and interest now exacted are to be paid in the following manner—the first instalment forthwith, and subsequent instalments on the first day of each ensuing calendar half-year. In case of non-payment on the due dates the defaulters are liable to a fresh series of pains and penalties!

In certain cases, tabulated below, the whole of the arrears are to be paid forthwith:—

| Firm. | Plot. | Exemptions. | Arrears. | Date for Final Payment. |
|---|---|---|---|---|
| | | | Rs. | |
| Arshalouis II. ... | 38 S. | — | 29.584 | — |
| Rylsky's Heirs ... | 73 S. | — | 67.934 | — |
| Votan Co. ... ... | 41 S. | | 65,895 | — |
| Russ. Nap. Pro. Co. | 8 B.E. | — | 306.786 | — |
| Shikovo Co. ... | 14. 15 B.E. | — | 52.862 | — |
| Mosco Volga Co. ... | 17 B.E. | — | 76,996 | — |
| Avan Ubasheff ... | 51 B.E. | | 19,642 | — |

The moral of the whole story seems to be that, however desirous people may be of embarking in the oil industry, they should studiously avoid Russian Government lands burdened with heavy royalties.

◆

## NEW ENGLISH COMPANIES.

### TRINIDAD FREEHOLD OIL COMPANY, LTD.

Registered on February 4th by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital £100 in £1 shares. Objects: To acquire any petroleum, asphalte, napthaline or oil bearing lands in Trinidad or elsewhere, or any interest in any such lands or winning of any natural gas, petroleum, or other oil, bitumen, asphalte, napthaline or other similar substances, and to sink wells and make borings, and to search for, obtain, exploit, develop, render suitable for, trade, carry away, and sell petroleum and mineral oils, natural gas, asphalte, napthaline and other similar substances and the products thereof, and other fuel. Signatories, S. Harper, 104, All Saints' Avenue, Harlesden, N.W., and J. A. Fuller, 110, Sirdar Road, Wood Green, N. Private Company.

### THE REEFS SYNDICATE, LTD.

Registered on February 9th, by J. C. Fox, Finsbury Court, Finsbury Pavement, E.C.: Capital £2,000, in £1 shares. Objects: To acquire petroleum or oil-bearing lands, etc., in Turkey or elsewhere, and to sink wells, make borings, and to search for oil, etc., and to carry on the business of dealers in, distillers and refiners of oils, spirits and ozokerite, etc. Signatories, H. C. Shaw, 42, Church Road, Southgate Road, N., and W. Milbourne, 87, Wynevor Road, Stoke Newington, N.; First directors (not yet appointed) shall not be less than two nor more than four. Private company.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO FEBRUARY 9th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. | Since Feb. 2. | From Jan. 1. |
| Belgium .. | — | — | 13,720 | 72,150 | — | — | — | — | 40 | 27,560 | — | — | 520 | 520 | 14,280 | 100,230 |
| Canada .. | — | — | — | 4,400 | 5,250 | 7,850 | — | — | — | — | — | — | — | — | 5,250 | 12,250 |
| Dutch Indies | — | — | — | — | — | — | — | — | 1,129,800 | 7,107,800 | — | — | — | — | 1,129,800 | 7,107,800 |
| Germany .. | 5,560 | 14,280 | 21.750 | 479,380 | — | — | — | — | — | — | — | — | — | — | 27,310 | 493.660 |
| Holland .. | — | — | — | 2,410 | — | — | — | 55,000 | 224,780 | 1,093,780 | — | — | — | 590 | 224,780 | 1,151,780 |
| Mexico .. | 196,000 | 1,534,680 | — | — | — | — | — | — | — | 754,170 | — | 733,800 | — | — | 196,000 | 3,022,650 |
| Roumania .. | 255,120 | 1,958,620 | — | — | — | — | — | — | 212,040 | 983,380 | — | 1,207,910 | — | — | 467,160 | 4,149,910 |
| Russia . | — | — | 1,010 | 626,470 | — | — | — | — | 1,295,570 | 3,202,880 | — | — | — | — | 1,296,580 | 3,829,350 |
| U.S.A. .. | 3,265,380 | 15,266,430 | 409,370 | 5,484,800 | 5,600 | 10,880 | — | 12,181,720 | 1,211,600 | 1,211,600 | — | 683,730 | 14,930 | 71,770 | 4,906,880 | 34,910,930 |
| Other Countries | — | — | 3,720 | 24,190 | — | — | — | — | — | — | — | 1,030 | — | — | 3,720 | 25,220 |
| | 3,722,060 | 18,774,010 | 449,570 | 6,693,800 | 10,850 | 18,730 | — | 12,236,720 | 4,073,830 | 14,381,170 | — | 2,626,470 | 15,450 | 72,880 | 8,271,760 | 54,803,780 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**The Gulf Coast Fields.**—It is estimated that the daily production of liquid fuel in the Gulf Coast fields amounts approximately to 16,000 barrels.

**Japanese Oilmen in Texas.**—Several well-known Japanese oilmen are now upon a visit to the Texas and Californian fields, one being the managing director of the Hoden Oil Company of Japan. The objects are a close study of the drilling operations in vogue in the American fields.

**The Wyoming Field.**—In spite of the fact that development work in the Wyoming fields is being held back owing to the Government policy of segregating all the best land as soon as oil is discovered, the oil industry of the State has had a remarkable growth during the past year, for its production of crude oil has been doubled. The Salt Creek field continues to be the most important, and to furnish nearly all the output.

## RUSSIAN.

**Petroleum Exploitation by Railways.**—The thirty-eighth Siezd of the Mining Industry has addressed the Ministry of Trade and Industry with a demand to refuse private railways the right of having their own exploitation of mineral fuel, as this must detrimentally influence the general development of the industry in the country. The demand is also based on the supposed increase in the production of fuel during 1914.

**High Technical School at Tiflis.**—The committee appointed for the purpose of erecting a high technical school at Tiflis has addressed a demand to the Siezd of the Technical Petroleum Producers to grant them the sum of 100,000 roubles for preliminary expenditure. The erection of the high technical school will commence next spring. 600,000 roubles have been decided upon as expense necessary for the realising of this plan.

## ROUMANIAN.

**Prices.**—The prices of crude oil are very firm, as the oil is in great demand by the refiners. Prices of products remain stationary.

**General Production.**—The general production has slightly increased during the past week, but does not exceed 5,000 tons a day.

**Romana-Americana.**—The production of this company amounts to 1,120 tons a day, of which 1,070 tons are produced at Moreni, and the rest at Bushtenari, Baicoi and Tetzani.

**The International.**—The production of this company on the Gura Ocnitza fields amounts to 130-140 tons a day. Well No. 27 continues regular eruptions, with a yield of 50 tons a day.

**Astra-Romana.**—The production of this company during the past week averaged 1,154 tons a day, of which 928 tons were obtained at Stavropoleos, 124 tons at Bana, 46 tons at Campina, 52 tons at Filipeshti, and the rest at Baicoi and Glodeni.

**The Steaua-Romana.**—The production of this company during the past week averaged 943 tons a day, of which 426 tons were obtained at Campina and 303 tons at Policiori. Well No. 1 at Moreni-Tzuicani makes daily eruptions, with an average production of 62 tons a day.

**Trajan Roumanian Oil Company, Ltd.**—This company has obtained the authorisation to operate in Roumania and to have its offices at Campina for the purpose of exploitation and trade in petroleum products. The representative of this company is Mr. Frank Russell.

**The Production of the Astra-Romana during January.**—The production of the Astra-Romana during January amounted to 31,588 tons, of which 24,816 tons were obtained at Stavropoleos, 3,746 tons at Bana, 1,637 tons at Filipeshti, 1,285 tons Campina, 84 tons at Baicoi and 20 tons at Glodeni.

**Exportation.**—Exportation maintains at the same level, but the storage accommodation at Constanza is so reduced and the circulation of trains so small, that the export movement will have to be further reduced, not because of the deficiency of oil, but owing to the impossibility of transport.

**Petroleum Industry, Ltd., Nuremberg.**—This company has addressed the Ministry of Trade and Industry with a demand for the authorisation to have a residence and offices at Ploeshti. This company has a refinery at Nuremberg, and has acquired half of the exploitation of Messrs. Gruener & Co., at Bordeni, and the refineries Scarlat Parascheva S-seurs, at Ploesti. The capital of the company is 1,150,000 marks.

**Activity on the Fields.**—Great activity prevails on the fields in order to increase the production, but there are still some difficulties in the way; thus the Steaua-Romana has been forced to abstain from further production at Moldavia owing to the deficiency of storage accommodation, which in its turn is caused by the impossibility of transport from Moineshti to Campina. Well No. 8P Roumana-Americana continues to yield by eruptions 300 tons a day, and well No. 1 Columbia has again increased its production to 60-70 tons a day. Well No. 20AR Astra-Romana continues to yield 200 tons a day by eruptions.

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# PETROLEUM IN CENTRAL ASIA.

The results of an important investigation carried out in Central Asia have just been published in the Bulletin of the Russian Chamber of Commerce.

From this it appears that petroliferous deposits have been found in two districts, viz., on the shores of the Caspian Sea and in the mountainous district of Turkestan. These two districts, although absolutely independent of each other, may nevertheless have certain relations. The era of petroleum exploitation in these two districts is only just beginning. As long as the exploitation of petroleum in the Baku district was sufficient for the needs of the country, it was not necessary to extend the petroleum industry to other districts, which owing to their position had no great interest for the producers, and therefore did not attract great attention : but from the moment when the production of Baku ceased to be adequate for the demands for petroleum products in the country, there originated an interest for other petroliferous districts.

According to recent investigations in the above districts, it is probable that the petroleum deposits extend along the whole of the shore of the Caspian Sea from north to south, where the existence of petroleum sources has been known for a long time, not only on firm land, but also under the Caspian Sea itself, to the surface of which oil ascends and forms oily layers. The successful exploitation of petroleum on the Isle of Tcheleken has caused the general attention of various producers to be attracted toward all the country extending from Atreck to Kopet-Dag and the central Asiatic railway. The largest number of explorations has been made in the country surrounding Tchikiliar and in the Silver Mountains, where practically all the petroliferous areas have already been taken possession of, and it is expected that in a short time there will arise a very large petroleum industry as soon as one of the borings now in progress results in a spouter.

Another district of petroliferous deposits is situated at a distance of 30 versts south-west from the station Bala-Ichem and Aidin, and surrounds the petroleum mountain area Nephte-Dag and the mount Bouia-Dag. The strata forming these mountains are composed of multi-coloured monticules and of marne of light green colour tinted with streaks of red. These strata are impregnated with petroleum in more or less considerable quantities and separated one from another by strata of generally fine sand. The disposition of the strata is such that petroleum exudes on the surface and forms large isolated cones of solidified petroleum. The investigations carried out in this district point to a great wealth of petroleum. The oil obtained is of dark greenish colour and of specific gravity 0.875, and contains a very considerable percentage of light products.

In the surroundings of Bouia-Dag there is a great number of alkaline and ferruginous sources, and it has also been stated that petroliferous stratifications and abundant exudations of gas are there. This district is especially important as being situated not far from Krasnovodsk, to which place oil can be dispatched by means of pipe lines. The value of the petroleum contained in the deposits of this last district naturally cannot yet be ascertained with any degree of certainty, but it must amount to many thousands of millions of poods. The petroliferous nature of this district has not yet attracted the attention of the producers, with the exception of an area situated to the south of the 4th Alexandrovsky and in the surroundings of Kulula, where Nobel Bros. are now proceeding with their first exploratory works.

In the immense district of the Steppes, covered by a sea of sand, no traces of petroleum have yet been found, but in time to come the presence of petroleum must reveal itself, indications of which were found in the very important exploitations arising in the district of the north-east of the Caspian Sea, that is to say the district of the Ural and the river Emba.

In Bukhara, petroleum has been discovered in the district Karcha, viz., on the river Kacha-Dari and at Khikirlyk-Astina, and also in the district of Khirabad. These two petroliferous areas are situated in the proximity of the districts where there are now proceeding irrigation works, and therefore are likely to be of great importance in the near future.

In Turkestan, the centre of petroliferous wealth, is situated a district which is lacerated on the south by the Turkestan mountains and on the north by the Tian-Khan mountains. Since immemorial times the population there have known of the presence of petroleum, which spouted in the shape of fountains on the surface, and even at the time when the Chinese dominated this country, petroleum was used for medicinal purposes.

*(To be concluded.)*

◆

## EXPORTS OF PETROLEUM PRODUCTS FROM BAKU DURING OCTOBER.

The total quantity of petroleum products exported from Baku during October amounted to 33,230,961 poods. The following table shows the quantities of various products exported by rail, on the Caspian Sea, and by road :—

| | Rail.<br>Poods. | Caspian Sea.<br>Poods. | Road.<br>Poods. |
|---|---|---|---|
| Kerosene ... ... | 2,919,279 | 4,582,356 | 101,031 |
| Lubricating oil ... | 1.103,437 | 367,317 | 25,628 |
| Solar oil, light ... | 36,511 | 158,300 | 60 |
| ,, ,, heavy ... | 258,211 | 115,123 | 954 |
| Residuals ... ... | 873,177 | 16,363,581 | 86,744 |
| Crude oil ... ... | 1,359,604 | 4,504,449 | 35,347 |
| Benzine ... .. | 329,734 | 3,992 | 6,126 |
| Totals ... ... | 6,879,953 | 26,095,118 | 255,890 |

UNREFINED OIL WANTED.

German Mineral Oil Refinery desires to buy from refinery annually from 30,000 to 40,000 barrels of mineral oil, unrefined, free from paraffin, sulphur and asphalt, and with a flashing point of not below 180 degrees Celsius (close test). Please submit quotations f.o.b. Rotterdam.—Address, "K.D." 2,679 c/o Rudolf Mosse Advertising Agency, Cologne.

# The New York Export Market During 1913.

## A DETAILED REVIEW OF OPERATIONS.

*From the "Oil City Semi-weekly Derrick."*

Notwithstanding the world's disturbing elements, stimulated by wars in south-eastern Europe, which unsettled the financial condition abroad, together with tariff legislation at home, coupled with the administration's anti-trust policies, general prosperity by oil companies has been enjoyed throughout the year. The future holds out the promise of keener competition among the different companies. It is intimated that leading oil factors, which have regulated prices, will not have the clear field when it comes to securing new business, as in the past, provided certain prophecies are fulfilled, but opinions differ on this matter.

Owing to the active demand for gasolene and fuel oil which shows further increases of 20 to 25 per cent. and approximately 300 to 400 per cent. per annum respectively, the petroleum situation is becoming more complicated, and illuminating oil which headed the list, is now gradually becoming the by-product of the petroleum industry. The supply of crude oil is inadequate to meet the demand, thus competition has been confined to the producing end of the industry rather than to the manufacturing. The inability to secure crude supplies has become a more important factor than ever before.

The upward trend of prices on illuminating oil throughout the year was generally looked for, based on a prospective larger demand and rapid strides in the consumption of fuel oil. The latter led to successive sharp appreciations of prices on crude oil in all of the leading oilfields the world over. The anticipated keen competition by the German government oil monopoly and other oil syndicates abroad to drive the American oil refiners out of the foreign markets, failed to materialise, due solely to the laws of supply and demand which governed the markets the world over throughout the year 1913. The growing demand for fuel oil by the world's navies means an active and broader search for petroleum for several years to come, and ultimately result in a substantial increase in the production. The attitude of the oil trade is simply this: The demand for oil and its products is simply tremendous and beyond the capacity to supply. To meet it all refiners must have crude oil. The public, therefore, must pay the cost of satisfying its wants. That it will do so and the increase in the consumption of refined and products will undoubtedly continue irrespective of the price, is the general belief.

Although the volume of business transacted in petroleum and its products in the New York market for export shows a decrease of about 13 per cent. compared with the preceding year's total, the price movements of refined and products have been decidedly satisfactory, but successive advances were less frequent than during the year 1912. Crude oil was the only product which scored a gain in sales. Prices of illuminating oil failed to reflect fully to the numerous advances in prices on crude oil. There has been more or less of a restriction upon the export movement in illuminating oil, owing to the high rates on tonnage during the early part of the year. This, however, was followed by a gradual lowering of rates, due in part to a steady increase of the fleet of tank oil vessels. The renewal of the old cry in the press here and abroad that American oil interests will have to face terrific competition by large oil foreign syndicates has been ignored. These interests have been opposing American refiners for numerous years, but as the latter have been and are strongly equipped to maintain their stronghold on the markets here and abroad, a prolonged price war in petroleum is becoming less apparent. Foreign oil fields have failed to meet the demand for oil, and America is the only source to be relied upon to meet the requirements of consumers abroad. The immensity of the industry is the strongest barrier against a trade war in petroleum. The new year has opened under favourable auspices, and prospects for a more prosperous year during 1914 in the oil industry has never been brighter.

On January 1st, 1913, prices in the New York market on cargo lots of case oil (each case containing two five-gallon low screw cans 110 fire test oil) opened up at 10.55c a gallon, followed by an advance of 25 points to 10.80c on January 10th. On May 14th, a further appreciation of values was established covering 20 points to 11c. This was followed by a stationary market up to October 23rd, on which date prices were again jacked up 25 points to 11.25c a gallon, closing firm at the latter figure on December 31st. For the year 1913 prices show a net advance of 70 points compared with a net gain of 170 points for the year 1912.

The following table gives the high and low export prices on cargo lots of illuminating oil in cases (each case containing two five-gallon low screw cans, 110 fire test oil) quoted in cents per gallon, standard and water white oils, f.o.b. New York:—

| | 1913. | | | |
|---|---|---|---|---|
| | S. W. | | W. W. | |
| | High. | Low. | High. | Low |
| January ... | 10.80 | 10.55 | 11.80 | 11.55 |
| February | 10.80 | 10.80 | 11.80 | 11.80 |
| March ... | 10.80 | 10.80 | 11.80 | 11.80 |
| April ... | 10.80 | 10.80 | 11.80 | 11.80 |
| May ... | 11.00 | 11.80 | 12.00 | 11.80 |
| June ... | 11.00 | 11.00 | 12·00 | 12.00 |
| July ... | 11.00 | 11.00 | 12.00 | 12.00 |
| August ... | 11.00 | 11.00 | 12.00 | 12.00 |
| September | 11.00 | 11.00 | 12.00 | 12.00 |
| October ... | 11.25 | 11.00 | 12.25 | 12.00 |
| November | 11.25 | 11.25 | 12.25 | 12.25 |
| December... | 11.25 | 11.25 | 12.25 | 12.25 |

Charge for delivering case oil to vessel in New York Harbour, lighterage limits, is as follows:—

| Cases | Per gal. |
|---|---|
| 10 to 99 | $2.00 |
| 100 to 199 | 1.50 |
| 200 to 299 | 90 |
| 300 to 399 | 60 |
| 400 to 499 | 50 |
| 500 to 699 | 40 |
| 700 to 999 | 30 |
| 1,000 to 2,999 | 25 |
| 3,000 to 9,999 | 15 |

10,000 and over, lighterage charged at $1\frac{1}{10}$ c. per case.

In order to arrive at f.o.b. vessel price of case oil 110 fire test, in regular export cases, containing two 5-gallon low screw cans, add delivery charge as above table, for quantity ordered to base price as given in market changes.

The following tabulated figures give the official export prices and fluctuations quoted in cents per gallon for illuminating oil in bulk, standard and water oils, New York loading f.o.b. cargo lots :—

1913.

| | S.W. | | W.W. | |
|---|---|---|---|---|
| | High. | Low. | High. | Low. |
| January | 4.80 | 4.80 | 5.80 | 5.80 |
| February | 4.80 | 4.80 | 5.80 | 5.80 |
| March | 4.80 | 4.80 | 5.80 | 5.80 |
| April ... | 4.80 | 4.80 | 5.80 | 5.80 |
| May ... | 5.00 | 4.80 | 6.00 | 5.80 |
| June ... | 5.00 | 5.00 | 6.00 | 6.00 |
| July ... | 5.00 | 5.00 | 6.00 | 6.00 |
| August | 5.00 | 5.00 | 6.00 | 6.00 |
| September | 5.00 | 5.00 | 6.00 | 6.00 |
| October | 5.25 | 5.00 | 6.25 | 6.00 |
| November | 5.25 | 5.25 | 6.25 | 6.25 |
| December | 5.25 | 5.25 | 6.25 | 6.25 |

The following table gives the official high and low export prices on cargo lots of illuminating oil, standard and water white oils, in bbls., quoted in cents per gallon, free on board New York :—

1913.

| | S.W. | | W.W. | |
|---|---|---|---|---|
| | High. | Low. | High. | Low. |
| January | 8.50 | 8.50 | 9.50 | 9.50 |
| February | 8.50 | 8.50 | 9.50 | 9.50 |
| March | 8.50 | 8.50 | 9.50 | 9.50 |
| April ... | 8.50 | 8.50 | 9.50 | 9.50 |
| May ... | 8.70 | 8.50 | 9.70 | 9.50 |
| June ... | 8.70 | 8.70 | 9.70 | 9.70 |
| July ... | 8.70 | 8.70 | 9.70 | 9.70 |
| August | 8.70 | 8.70 | 9.70 | 9.70 |
| September | 8.70 | 8.70 | 9.70 | 9.70 |
| October | 8.75 | 8.70 | 9.75 | 9.70 |
| November | 8.75 | 8.75 | 9.75 | 9.75 |
| December | 8.75 | 8.75 | 9.75 | 9.75 |

The year opened up with prices quoted firm at 4.80c a gallon for refined illuminating oil in bulk, remaining unchanged up to May 14th, on which date quotations on cargo lots were advanced 20 points, followed by a further rise of 25 points to 5.25c a gallon, which price remained unchanged up to the close of the year. The net gain in prices covered 45 points for the year, compared with a net gain of 93 points for the year 1912.

Quotations on illuminating oil in bbls. failed to fully respond to the appreciation of values covering oil in cases. This was partly attributed to a lessened demand, owing to the increased use of steel bbls., insuring the shipper losses by leakage, larger shipments of oil by tank steamers and a reduction in the price of cooperage due to a large increase of supplies in the hands of dealers. On January 1st, prices opened at 8.50c a gallon, followed by a rise of 20 points on May 14th and a further advance of 5 points to 8.75c on October 23rd. The latter price was sustained up to the close of the year. The net advance for the year covered 25 points, as against 170 points for the year 1912.

The rapid rise in gasoline prices has been a matter of serious moment among owners of automobiles and garage firms, as well as manufacturers of passenger and commercial cars. Producers also have been baffled over the situation, for crude oil, from which gasoline is refined, has steadily advanced in price and, together with consumption exceeding the production, prices have ruled strong throughout the major part of the year. Experiments here and abroad to unearth substitutes for gasoline in motors have been vigorously pushed, owing to the broadening demand for use of automobiles, motor boats and stationary engines on farms and in numerous manufacturing plants. Should the recent claims of inventors here and abroad, covering substitutes for gasoline at a marked reduction in prices, be established it will mean an increased use for petroleum products. A feature in the naphtha market was the check of the upward movement of prices and a reduction of one-half cent a gallon on all naphthas which went into effect on June 19th, except supplies in 10-gallon drums. It was intimated that the depreciation of values was due to keen competition among refiners in the markets here and abroad, as well as the inroads being made by the use of substitutes. Arrivals of gasoline from Sumatra and indications for sharp rivalry in the future led to a general easier feeling in trade circles. This was followed by a further reduction of one-half cent a gallon on all grades of naphthas on September 19th, and another cut of one cent a gallon covering all grades on December 24th, with prices quoted at 25c a gallon for lots of 200 cases and above f.o.b. New York, and remaining unchanged up to the close of the year. To meet the competition of substitutes for gasoline, leading local refiners made a public announcement early in March that their companies are offering a substitute for gasoline, which has been selling under the trade name of motor spirit and marketed at three cents a gallon below the price of gasoline. It is asserted that the new product furnishes 25 per cent. more mileage than gasoline, and is an additional by-product of petroleum. By the discovery of the spirit the output of fuel for gasoline engines from a given amount of crude petroleum is declared to be practically doubled. This, it is intimated, aided the downward trend of prices of gasoline from June 19th up to the close of the year.

Price fluctuations were less numerous than for the preceding year covering the various by-products. The year opened with an upward movement of values, which continued up to March 17th, after which date an easier tone pervaded the market and was followed by several reductions in quotations which began on June 19th. Naphtha 73 @ 76° opened up at 28c, advanced to 28.50c on January 7th, and to 29.50c on January 18th. On March 17th prices were raised 50 points to 30c, followed by a reduction of 50 points to 29.50c on June 19th, and a further cut of 50 points to 29c on September 19th, closing at the latter figure on December 31st. The net advance for 1913 covered 100 points, as compared with 650 points for the year 1912. Auto 68 @ 72° was quoted at 25c a gallon on January 1st, followed by advances of 50 points and 100 points to 25.50c and to 27.50c on January 7th and 18th and a further rise of 50 points to 27c on March 17th. On June 19th the price receded 50 points to 26c and was followed by a further reduction of 100 points to 25c a gallon on December 24th, closing unchanged on December 31st, showing no net changes for the year, as compared with a 650-point gain for the preceding year.

(*To be continued.*)

# THE BLACK SEA OILFIELDS, LTD.

## ANNUAL MEETING OF SHAREHOLDERS. ADDITIONAL TERRITORY ACQUIRED.

On Tuesday the fourth ordinary general meeting of the Black Sea Oil Fields, Ltd., was held at Winchester House, Old Broad Street, E.C., Sir J. S. Harmood-Banner, M.P. (chairman of the company), presiding.

The Chairman, in moving the adoption of the report and balance-sheet, said: With regard to the balance-sheet, our capital remains the same, and it is, as you will have observed, all fully issued. Sundry creditors in London are £6,223. 16s. 8d. By far the larger portion of this amount is in respect of income tax payable on our profits. At the date of the balance-sheet we had paid no tax, and the amount for which we were then liable was £5,389. 19s. 8d. There are also included sums of £518. 7s. 3d., which we have reserved this year against the debt due to us from the Maikop Association, Ltd., which company is in liquidation, and £122. 16s. 7d. in respect of dividends unpaid at this date. Our creditors in Russia include an amount of £24,168. 9s. due to the Anglo-Maikop Corporation, Ltd., and allied companies, principally for materials and stores supplied. As I explained when I had the pleasure of addressing you twelve months ago, the corporation, through their stores department, purchase large quantities of materials on favourable terms, and supply this and other allied companies with goods as required at cost price, with a small commission added to cover their remuneration and expenses of the department. Investment fluctuation account is an account which figures this year in our balance-sheet for the first time, and arises through the market depreciation on our holding of shares in the Maikop Pipeline and Transport Company, Ltd. We have deemed it prudent, and I am sure you will all agree with us, to set aside out of the profits of this year a sum for this purpose, writing down the value of the ordinary shares to 4s. 3d., the market value, but not necessarily the intrinsic value, of the shares. Profit and loss account I will deal with at a later stage.

Although our production during the period covered by the accounts was considerably less than during the previous year, the increased price which we have been able to obtain for the oil has compensated us to a very large extent for the falling off in the output. The other items in the account are clearly set out, and do not, I think, call for any special explanation. Your directors, after having given very careful consideration to the question of a dividend, are unanimously agreed that it would not be in the best interests of the company that one should be paid for the past year. I need, perhaps, hardly assure you that it is with great regret we have arrived at this decision, and perhaps some of you will not at first sight agree with our opinion; but you must remember that, although a considerable amount of exploration work has been carried out to date, there still remains much to be done to test the extension of the oil deposits on the Maikop field. It must, of course, be patent to all of you that, as the company has long since expended all its working capital, such development and exploratory work can, as I have several times pointed out to you in the past, only be done out of revenue, and, while some shareholders may feel some disappointment at the passing of the dividend this year, there is no doubt whatever in the mind of my colleagues and myself that it is the wisest and most prudent course in the circumstances to pursue. I would only add that, if any preference shareholder thinks that the carrying forward of so large a balance, or the form in which the account is submitted, is to the detriment of the preference shareholders, and in the interests of the ordinary shareholders, I shall be only too glad to concur in appropriating, say, £20,000 of that balance to a depreciation fund for the further purposes of the company. This would certainly do away with some of the suggestions which I see have been made in letters written to the papers, that our action is intended for the protection of the ordinary shareholders at the expense of the preference shareholders. In the past, I am glad to say, we have been particularly free from legal cases in Russia, but we have at present one pending. A claim has been made against us by a firm, in the Russian courts, for non-fulfilment of a contract, and since the date of these accounts judgment in the first case has been given against us for £1,850. When the appeal which has been lodged has been heard, we are advised we have good grounds for believing that the judgment will be reversed.

Dealing now with the company's operations during the year in the Shirvansky district, whence the company is deriving practically all its output, further wells have been drilled on Plot No. 3, but there is nothing of particular interest to record. Your directors have been following with a considerable amount of interest the developments which have lately taken place in what is known as the heavy oil area, situated to the north-east of our plots in Shirvansky. This part of the field is still in a comparatively unexplored state, but there can be, I think, no doubt as to the prolific nature of the area. A spouter was brought in here by the Maikop Spies Company in 1910 on plot No. 533. Mr. Tweedy has on several occasions drawn attention to the fact that one of the greatest problems in connection with the exploitation of the heavy oil source has been the water difficulty. This, however, has now been overcome. The Maikop New Producers last week struck the heavy oil source on plot No. 534, the water being perfectly shut off. In the Neftianaya district we have drilled two wells. In the first of these, although we struck oil and the well spouted, the casing shortly collapsed and we were unable to bring the well again into production. The second well was drilled to a depth of 1,780 ft., but, as no favourable indications were met with, this also has since been suspended for the present, pending the results of wells being bored by other companies in the neighbourhood. Our geologists, however, are convinced that somewhere in the neighbourhood of our Neftianaya plots a large body of oil exists, and it is only by the judicious expenditure of money on exploration that we shall be able to find out where the main deposit lies. In the Khadijinskaya district we have adopted the policy of drilling a few small wells, and three of these have been brought into a producing stage. You will appreciate that, with a number of shallow and inexpensive wells worked from a central pumping installation, although the production from each well may be small, we still have a profitable proposition, with oil at present prices, and are thus in a position to profitably utilise the time pending the result of the deep drilling operations in this district. We are also interested in a deep well on plot No. 120, which is being drilled by a group of companies associated with the Anglo-Maikop Corporation. Plot No. 120 immediately adjoins plot No. 108, on which, as you already know, oil was struck by the Deep Drilling Company at a depth of 2,000 ft., and the intention of the group drilling this well is to find out in what direction the sands extend from plot No. 108. This well has already reached a depth of 1,600 ft., and the casing is of sufficiently large diameter to carry the bore to at least the depth at which oil was struck on the neighbouring plot. From the point of view of the exploration of the deep oil sources Khadijinskaya, situated twelve miles from the present producing area, is just now the most interesting part of the field.

Now I will refer to the clause in the report in which reference is made to an offer which has been received for the purchase of this company's refinery at Shirvansky. This offer has been made by the Kuban Refining Company, Ltd., which already controls a large and up-to-date refinery in Ekaterinodar. It is not itself a producing company, but handles practically the whole of the production of the crude oil from the Maikop field, with the exception of the quantity which up to the present has passed through our own refinery at Shirvansky. Our own refinery, which was built, in the first instance, by the original vendor for supplying the needs of local customers, suffers greatly from the disadvantage of not being situated near a railway, the nearest railway station being some twenty-seven miles distant, and transport has therefore to be effected mainly by carting the products in barrels. This is necessarily a slow and costly process, and I need scarcely point out to you the result when the weather is bad and the roads impassable, which, I am sorry to say, has happened only too frequently in the past. We are then unable to transport anything at all from our refinery. On the other hand, the refinery at Ekaterinodar has none of these troubles to contend with. It has the railway close to its doors, and so has free access for its products to all the markets of Europe. I am pleased to say that the relations between our company and the refinery at Ekaterinodar are, and have been, most friendly, for which I think we have great reason to thank Mr. Tweedy; but I would ask you to picture to yourselves for one moment what the position would be if the relationship at any time were to become strained. Where should we be, with our refinery situated as it is, in competition with the refinery at Ekaterinodar, with the possible cutting of prices which might result? Owing to these disadvantages, we have not been able to make the refinery department as profitable as we had hoped, and so when a proposal was made to us by the Kuban Refining Company, Ltd., to buy us out, we felt it was one worthy of very serious consideration. The price to be paid us, after lengthy negotiations, has been agreed upon, subject to your approval, as 430,000 roubles (£45,263) half of which will be received by us in cash by instalments, and the balance in shares of the Kuban Refining Company at par. These shares should prove an asset of great value to our company, as I am informed at the present time the Kuban Refining Company is earning something between 30 and 40 per cent. on its issued capital of £160,000. The shares to be allotted to us will participate in the profits of that company as from January 1st this year (o.s.).

Now I can quite understand that some shareholders may feel inclined to criticise the suggestions which are made regarding the sale of the refinery, but I would like to point out that the offer which is submitted is considerably in excess of what the refinery has cost us. Further, we shall receive the dividends on our holding in the Kuban Refining Company, which ought to be considerable, and to equal, if not to exceed, any probable result that we might ever hope to make on working our own refinery. Another reason—and this is the same reason which actuated the directors in not declaring a preference dividend—is the fact that there are not at present sufficient funds in hand for the purpose of the exploratory work necessary to be done in the interests of the company, which, after all, is essentially a crude oil-getting company. You will see that last year we expended £24,679 on development work, and that both our stocks of materials and oil are considerably larger than the previous year; so that, for purposes of carrying on the working of our company, all our profits have been needed, and, in addition, we end with a smaller balance than we started the year with. Since the date of the accounts the same conditions have obtained, and while we have now reduced our liabilities, and we hope shortly to be in a better position, yet our cash position undoubtedly required strengthening. The question, therefore, it seems to me, is whether you are prepared to make certain of the cash which will come in to the company from the sale of the refinery, and which would be available for carrying on the necessary exploratory work of the company, which I venture to suggest is the proper course, or whether you will speculate by retaining the refinery on the chances of making profits in the future, or, at any rate, larger profits than have hitherto been made, in which case undoubtedly the directors would have to discontinue the regular development work in endeavouring to increase the production.

I think there can be no question as to which course ought to be pursued, and that is, you should make certain of your profit on this refinery, and speculate rather on the increase in the production of your crude oil by the continuance of the company's work of exploring the field. I hope, when you have carefully considered these points, you will agree with me that we are right in proposing to carry through this arrangement. We feel, however, that you should have the direct opportunity of expressing your views on this matter, especially as two members of your board are also members of the board of the Kuban Refining Company, Ltd. A provisional agreement is being prepared which will only become binding on your approval being obtained. For this purpose it is necessary to hold an extraordinary general meeting of the company, which has accordingly been fixed for March 10th, when the necessary resolution will be submitted. I regret that it was found impossible to hold this meeting to-day, as under the terms of our recognition in Russia, it is obligatory on us to notify the time and place of our meeting, with notice of the business to be transacted, at least one month beforehand by advertisement in Russian papers. This we could not do in time to hold the meeting to-day. The most convenient course to adopt in the circumstances will, I think, be to take an informal resolution on the subject to-day, when you will have an opportunity of expressing your views, and to enclose with the notice, which will shortly be sent you convening the extraordinary meeting, a form of proxy, which you will be able to complete and send in, and thus obviate personal attendance at the meeting on March 10th. I have now only to move: "That the report of the directors and the accounts for the year ended July 13th, 1913, be, and they are hereby, approved and adopted," and I have much pleasure in asking Mr. Tweedy to second that.

Mr. Tweedy, in seconding the resolution, said: The chairman has covered most of the points dealing with the company's affairs during the year; but he has left me to deal with one subject on which there has been a good deal of discussion, and that is the falling off of our production. Since I came into the building I made this remark to a shareholder, and he replied: "Yes; but the Maikop production continues to go down; there is no variation." Since he made that remark my secretary has brought me information showing fluctuations on other fields. In Sumatra, the Royal Dutch Company, which is now an important company, I think you will admit, had a production in 1900 of 158,000 tons; in 1901 it was 357,000 tons; in 1902 it was 186,000 tons; in 1903 it was 563,000 tons. In Java the production in 1901 was 88,000 tons; in 1902, 54,000; in 1903, 110,000. Then, in Grosny, a Russian field, the production in 1896 was 17,200,151 poods; in 1897 it was 27,568,000 poods; and in 1898, 17,700,000 poods. To take a more recent instance, we will turn to Cheleken, where in 1911 there was a production of 10,000,000 poods; in 1912, it was 13,400,000 poods; and in 1913, 7,300,000 poods. Variations in the output, particularly in the early days of an oilfield, are quite common; moreover, you must not overlook the fact that, although oil has been discovered on the Maikop field over an area of twenty miles by three miles, our production so far has been obtained from only eight acres, part of twenty-seven acres on plot No. 3. Efforts have been made to discover the extension of the oil line on the remainder of plot No. 3, but, up to quite recently, without success. During the last few days, however, we have discovered on that plot what we hope is an extension of the oil line. It is somewhat early to prophesy as to the value of this new discovery; but it is important that a find has been made on the old plot which may be of considerable value. In connection with this new discovery I may say that it happens to be near where our main buildings are situated, and therefore, before incurring the expense of removing these, we must thoroughly test the oil source. This, we hope, may be a reward for the efforts we have made to extend the oil area on our property. I should like to point out that other companies in our group have quite recently been successful in locating the direction of the oil line on several plots—for example, the Maikop Premier Oil Syndicate, on otvod No. 21, the Maikop Victory, on otvod No. 170, and the New Producers on plot No. 534. Two wells are being bored on plot No. 457, which, if successful, will still further extend the line towards the plots of this company in the Neftianaya district. You will see by the plan how very important for us these developments are. Of course, you understand that our production hitherto has come from the upper sources. The deeper sources should be more regular, and, judging by common experience, they ought to be more productive. Several deep wells are now being bored which will give us more reliable data with regard to the field at depth. Three of these wells are situated near to plot No. 108, where, as you know, oil was struck at 2,263 ft.

As stated by the chairman, important results have been obtained during the past few weeks in what is known as the heavy oil area. The New Producers struck oil last week on plot No. 534 at a depth of 645 ft., and the well has been flowing gently since. Oil has also been struck by a Russian company in a well on the plot adjoining. Further wells are now being drilled on plots Nos. 532, 533, 534, and 554; therefore, you will see a considerable amount of work is now being carried out in the new district. The development operations generally of the Anglo-Maikop group have for some time been arranged in such a manner that the exploratory work on hand would not only benefit the particular companies on whose properties the wells were situated, but would also be of benefit to the majority of the allied companies. The saving in expenditure to each company by this system is apparent. The developments which have taken place in the heavy oil area are part of the results of this programme, and in order that your company may participate in the success attained you may be pleased to know that we have practically concluded the arrangements for taking over three plots which are so situated that they should all be certain producers. The plots will be acquired on a royalty basis, except in one case, where some work has already been done, and in respect of which we shall have to make an additional small cash payment. The companies from which we are taking these plots hold such a large area in the heavy oil district that they have not the plant and machinery, etc., to work the whole of their plots, and to get the necessary supplies would entail a heavy expenditure, besides many months of weary waiting, of which you have had quite enough. As you are aware, the Black Sea Oilfields is in possession of a large stock of materials and ample plant and machinery; therefore, you will readily understand that the arrangements should prove mutually advantageous. It is a matter of general knowledge, even to those not connected with the practical part of the business, that the development of a new oilfield is one of the most arduous tasks that can be undertaken, and, as an oil man, I think the delays and difficulties which we have encountered in Maikop are no more than those common to most new oilfields. In fact, there is no other oilfield in the world that has given as good results in its early years as Maikop. Unfortunately, we have had to bear the burden of the disappointments consequent on the unwarranted boom of 1910. During that boom I ventured to give a word of warning, urging that it is the common experience in a new oilfield to meet with disappointments, and that Maikop would probably be no exception to the rule; that was in June, 1910. I added, "we must take it as certain that many of the wells bored will not be producers." This has been our experience, but, having spent most of my time at Maikop during the last four years, I ought to know the prospects and character of the field better than most people on this side, and I think I am not too sanguine in giving as my opinion—I realise to the full my responsibility in doing so—that you, as well as the shareholders in the other companies of the Anglo-Maikop group, will be amply rewarded for your patience. The improvement in production of some of these companies has already begun, and I hope it will soon be the turn of this company.

We are continually hearing of the millions which are supposed to have been sunk and lost in Maikop. I have been at some trouble to try and get out the actual facts, and I find that the nominal capital of the companies formed to search for oil on the Maikop field—including the reconstructed companies—is about £7,000,000. Of this about £4,600,000 was issued. The amount actually spent on drilling wells is only about £320,000, on plant and machinery £300,000, and on buildings £180,000, making a grand total of £800,000 spent on the field. I might mention that while the work of the Anglo-Maikop group accounts for about £340,000 of this, that group has produced about 80 per cent. of the total quantity of oil that has come out of Maikop. The point, however, which I wish to emphasise is that the amount of cash spent on drilling wells—which, after all, is the only means of proving an oilfield—is quite a nominal figure—namely, only £320,000 for exploring an oilfield of the extent of Maikop. These figures, I think, will, in any case, remove false impressions with regard to the amount of money expended on the Maikop field, the exploration of which, in my opinion, has only just been commenced. There is one matter that I have not mentioned, and that is the proposed sale of the refinery. I am in rather a difficult position with regard to this question, being a director of the purchasing company; therefore I have purposely avoided mentioning it; but as managing director of your company, and having carried on operations from the opening of the pipeline in April, 1911, without having at our disposal any regular working capital, you can imagine the pleasure it would give me should the shareholders adopt the proposals of the board, as this would mean that we should have available about £50,000 for development work. I am making this personal statement, as I am leaving next week for Maikop, and will therefore not be present at the extraordinary meeting on March 10th. I now beg to second the resolution.

The Chairman, in reply to questions, said that with regard to the question of dividends and the reason why they were unable to recommend one on the present occasion, the common-sense view of the matter was obtained by looking at the cash available. The capital expenditure had hitherto always exceeded the amount of the profits made after deducting depreciation, and, that being so, he did not see where the directors were to find the funds with which to pay a dividend. As regarded the sale of the refinery, the cash to be received was to be paid by instalments; but they had to do their exploration work all the time. The profits were spent on that exploration work. With regard to the subject of depreciation, he thought the accounts were correctly drawn up in that respect. The cost of each well was kept very carefully, and at the end of the year they depreciated each well on the basis of a very moderate life indeed. Those wells which have gone out of existence were written off altogether. The depreciation represented a large sum, but he thought that the course they adopted was the proper one.

Mr. Gilchrist asked how the £50,000 for working capital, mentioned by Mr. Tweedy, was made up.

Mr. Tweedy said that they would receive in cash about £22,500 for the refinery, which, added to the amount carried forward, would give them about £50,000 for development. They would also have £22,500, or a little more, in shares of the Kuban Refining Company, Ltd.

Replying to further questions as to his present views on the Maikop field, Mr. Tweedy said that he had repeatedly expressed the opinion that from the upper sources alone the field would give a large production, and yield large profits, and if they succeeded in getting oil at depth there would be a fortune in it. The strike by the Maikop Victory on plot No. 488 was evidence of the necessity of continuous exploration in the Maikop district. On a plot recently taken over from another company they had found oil in two new wells which they had put down, the second one giving 10,000 poods per week.

Mr. Pitt, who said he was not satisfied with the chairman's explanation as to the non-payment of a dividend, moved, as an amendment: "That the report be amended by sanctioning a dividend of 7 per cent. to the preference shareholders—£11,200—thus carrying forward £14,301. 6s. 7d."

The amendment was not seconded.

The Chairman's resolution was then put to the meeting and carried unanimously.

On the motion of the Chairman, seconded by Mr. Tweedy, the retiring director (Mr. J. H. Renton) was re-elected.

On the motion of Mr. Baker, seconded by Mr. Bird, Messrs. J. M. Henderson & Sons were reappointed auditors.

The Chairman then proposed an informal resolution approving the sale of the refinery.

This was seconded by Mr. Tweedy and carried unanimously.

A vote of thanks to the chairman concluded the proceedings.

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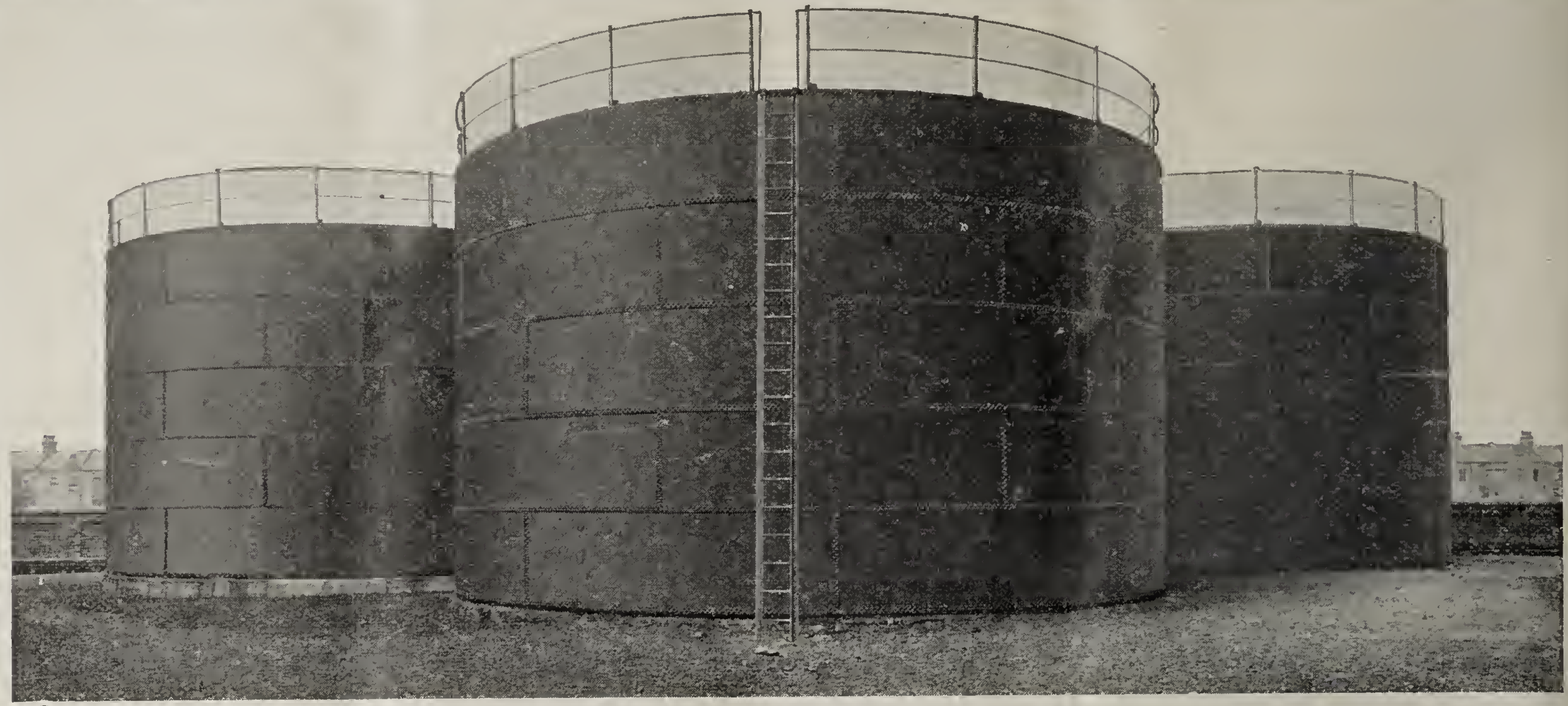

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# Oil Fuels and their Application to the Generation of Power.

Professor Thomas Gray, D.Sc., Phd., and Professor A. L. Mellanby, D.Sc., recently contributed a paper before the Institution of Engineers and shipbuilders of Scotland on the foregoing subject:—

The authors said: The rapid extention of the use of oil fuel during recent years was undoubtedly due initially to the accumulation of large stocks of petroleum, available at low prices, but the present widespread demand is to be attributed largely to a more general recognition of the greater convenience and efficiency of oil, compared with coal, and also to the development of the Diesel engine, which has placed at the disposal of the engineer a highly efficient method of utilising the energy latent in liquid fuels. The bulk of the petroleum employed at the present time for the generation of power is burned under steam boilers. Distilled oils from petroleum and tar and some crude oils have been extensively used in Diesel engines, but much work remains to be done before it can be definitely asserted that this type of engine is capable of dealing successfully with the many varieties of petroleum which occur naturally. Sufficient data have, however, been accumulated to permit of the following comparison of the relative values of oil and coal.

The oil is broken up into a very finely divided spray by forcing it through specially constructed orifices—(*a*) by means of steam under pressure; (*b*) with the help of compressed air, or (*c*) by supplying the oil itself under pressure.

The flame produced by steam injection is more extended, and consequently cooler than that resulting from either of the other methods, on account of the formation of water gas by the reaction of the steam with the carbon present in the oil. The combustion space must, therefore, be ample, otherwise there is difficulty in effecting smokeless combustion. Provided this condition is satisfied no difficulty is experienced, but the efficiency is reduced by the presence of the steam, which carries away into the flue a not inconsiderable proportion of the heat generated.

Injection of the oil with air is a more rational method; as a portion of the air required for combustion is intimately mixed with the finely atomised oil, the area of the flame is smaller, and the temperature is higher locally. To prevent the fuel from being driven too quickly through the combustion space, the injector should be constructed to give the oil a whirling motion, thus retarding its forward movement.

In burners belonging to class (*c*) the oil is forced under pressure through spiral channels or against the edges of specially shaped cutters, and issues as a whirling mist. This type of burner has proved very successful in practice, and has been widely adopted.

The evaporative efficiency of oil, if thoroughly atomised in a well-designed burner, is considerably higher than that of coal. The results of numerous trials show that one pound of crude petroleum or residuum, with a net calorific value of from 18,000 to 18,250 B.Th.U.'s, will evaporate from 14½ to 15lbs. of water from and at 212 deg. Fah. This evaporation is approximately 50 per cent. greater than that resulting from equal weight of good steam coal. These figures do not, however, represent the relative values of oil and coal as fuels in actual practice, since they leave out of account the decreased labour charges and other advantages of firing with oil. In large land installations, where the handling of the coal is performed by conveyors and mechanical stokers, the saving of labour resulting from the adoption of a liquid fuel does not constitute an important factor, but, on board ship, where hand stoking is practised, the change from coal to oil effects a large reduction of the number of men required. As the oil is supplied to the burners automatically, and the cleaning of fires and the removal of ashes unnecessary, one stoker is able to attend to a number of boilers. The bunkering of a ship with liquid fuel can also be carried out much more easily and quickly than with coal, with an entire absence of the dirt and disorganisation of work incidental to coaling.

The relatively small storage space required for oil is a further important consideration in the case of a ship. Assuming the evaporative power of two tons of oil to equal that of three tons of coal and the volumes of one ton of oil and of coal when stored to be approximately 38 and 45 cubic ft. respectively, the space occupied by a petroleum fuel is only from 55 to 60 per cent. of that necessary for the equivaent quantity of coal. Taking further into consideration the fact that oil may be stored in inaccessible places, such as between the double bottoms, from which it may be readily removed by pumping, it will be evident that the change from coal to oil will set free a considerable space for additional cargo. It is impossible to assess the value of these advantages without reference to a particular example, but the conclusion is obvious that the ratio of the value of oil to coal, weight for weight, for the generation of power on board ship, is very considerably greater than on land. Taking the various advantages of oil fuel into consideration, the value of petroleum for steam raising in a land installation is commonly assumed to be about twice that of coal.

The properties of the various oils which have been used successfully in the Diesel engine, along with details of the working results, are given in the special sections of this paper. Attention is directed to a statement of the relative efficiencies of oil and coal in oil and steam engines.

Favourable conditions of load, the thermal efficiency of the Diesel engine is stated to be 33 per cent., which corresponds for an oil with a net calorific value of 18,000 B.Th.U.'s. per lb., to a consumption of 0.42lbs. of petroleum oil per b.h.p. The consumption of oil varies with the size of the engine, and is found in practice to range from a little above 0.4lbs. of a petroleum oil in the case of a large engine to about 0.5lbs. per b.h.p. per hour with an engine of 25 h.p.

Comparing the lowest value with the performance of a high-class marine engine which will use from 1.5 to 1.6 lbs. of coal per hour per b.h.p., they found that the weight of coal used in the combination of boiler and steam engine from 3½ to 4 times the weight of petroleum oil necessary to perform the same work in the Diesel engine.

If, on the other hand, the performance of the Diesel engine is compared with that of a steam engine supplied with super-heated steam, the superiority of the former is less pronounced. Within recent years so-called locomobile engines have been developed, principally in Germany, which are guaranteed by the makers to operate with a consumption of ½ kilogramme (1.1lbs.) of coal per b.h.p. per hour. In these machines radiation losses are avoided by placing the engine directly above the boiler, and supplying the former with highly super-heated steam. Taking this figure as a basis, the ratio of the weight of coal to that of oil necessary to develop one b.h.p. becomes from 1.1 to 0.4, or 2.75 to 1. There seems little room for doubting, however, that the adoption of high super-heats in marine engines will become more universal as more experience is gained and that both with turbines and reciprocating engines consumptions of the order of 1lb. of coal per hour per i.h.p. will become common. On the other hand a further advantage in favour of the oil engine is the practical absence of stand-by losses, which frequently account for a considerable proportion of the coal consumption when a steam engine is used intermittently.

Regarded solely from the standpoint of fuel efficiency, the oil engine is admittedly far superior to the combination of boiler and steam engine, but the question of the relative costs of generating power by the two systems depends also on other factors, and can only be answered when the conditions under which the plant operates are specified. The initial cost of a Diesel installation is very considerably greater than that of a steam engine and boiler, and the higher interest and depreciation charges may more than counterbalance the saving in fuel costs. In localities where the cost of fuel is high, and the engine is running continuously, the fuel charge represents a large item in the total cost, and the advantage lies with the Diesel instalation. If, on the other hand, fuel is cheap and the load factor low, the fuel costs are relatively small, and the conditions are unfavourable to the operation of the oil engine. The relative prices of oil and coal are obviously an important factor in the comparison of costs.

The high efficiency and other advantages of the Diesel engine are now generally recognised, but its adoption in practice is progressing comparatively slowly. This is accounted for by the natural reluctance of the power used to commit himself to a type of engine which can only deal with oil, until an adequate supply of suitable liquid fuel at a reasonable price is assured There is also a disinclination on the part of engineers who have experienced the convenience of working with steam turbines, to take what they consider to be a retrograde step in building an engine with heavy reciprocating masses. Conditions in Great Britain are, at the present time, unfavourable to the development of the Diesel engine, and the possibility of increased supplies of oil fuel, which is an essential condition of further progress, has been widely discussed; we propose to deal at considerable length with this important aspect of the liquid fuel question in the present paper.

The various industrial oils may be grouped into the following classes:—

Class 1.—Petroleums, shale oils, lignite oil; and their products of distillation.

Class 2.—Coal tar and tar oils.

Class 3.—Vegetable and animal oils.

The oils which are grouped together in class 1 have similar chemical and physical properties, and are used for the same purposes.

So far as Great Britain is concerned, lignite oils and the oils of class 3 may be eliminated from the above list. The production of crude lignite oil is confined to Germany, and the total output during the twenty years from 1890 to 1909 only averaged about 60,000 tons per annum. Vegetable and animal oils are in large quantities, but they command prices which remove them from the category of possible fuels. In the order of importance the petroleums stand alone, but interest in this country centres round the coa tars, shale oils, and the oils produced from these by distillation, and for this reason the space available for the present paper was devoted largely to a detailed discussion of the sources of supply, the total outputs and the properties and uses of these products.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co, 61, St. Mary Axe, E.C.

February 13th, 1914.

The official prices of Refined Petroleum are un-hanged as follows:—Russian, 7¾d.; American, 8d.; merican Water White, 9d.; Roumanian, 7½d.; alician, 7½d.

### LUBRICATING OILS

re quoted for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

The market price is 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL.

80s. per ton, in bulk, ex wharf, represents the current rice.

### MOTOR SPIRIT.

The retail price in London for the best quality is s. 9d. per gallon, and 1s. 7d. per gallon for the second uality.

### TURPENTINE.

The turpentine market has been fluctuating considerbly during the week, but is now pretty firm at 32s. for pot; 32s. 3d., March/April; 33s., May/August; 34s., eptember/December.

## LIVERPOOL.

February 11th.

Petroleum oils have a steady sale, and former urrencies are asked for Refined, 8¾d. being still quoted or Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## INDIA.

Bombay, January 14th.

The following are the current prices of the Standard il Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, td., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| ising Sun Brand, Bulk, Loose, per unit ... | 3 | 13 | 0 |
| ising Sun Brand, New Tins, per pair ... | 4 | 7 | 0 |
| ull Brand, Bulk, Loose, per unit ... | 3 | 11 | 0 |
| ull Brand, New Tins, per pair ... | 4 | 0 | 6 |
| wan Brand, Bulk, Loose, per unit ... | 3 | 2 | 6 |
| wan Brand, New Tins, per pair ... | 3 | 12 | 6 |
| nchor Tins, per pair ... | 4 | 8 | 0 |
| ıell 150 deg. cases, per case ... | 5 | 8 | 0 |
| nchor cases, per case ... | 5 | 0 | 0 |

The following are the current prices of the Burmah il Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| erosene Oil "Waterlily," per case of two tins ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... | 4 | 15 | 0 |
| Chukker, per two tins ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... | 3 | 1 | 6 |
| urmah Wax, per pound, 1st quality ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... | 0 | 3 | 0 |
| ,, Candles, per pound ... | 0 | 4 | 0 |

## AMERICA.

New York, February 11th.

Refined, in cases, is quoted at 11·25; Standard White 8·75; Credit balances, 2·50.

Philadelphia, February 11th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, February 10th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, February 10th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 38¾–39 copecs per pood spot. Kerosene, 47½–48 copecs. Residuals, 37–37¼ copecs.

## ROUMANIA.

February 10th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·15–8·25 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 5·50–6·25 |
| ,, ,, ,, | Policiori... | 5·30 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| Paraffin ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... | 7·00– 7·50 |
| Gas Oil... | 8·00 |

## AUSTRIA.

February 10th.

Crude oil is quoted 8·20 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date February 12th as follows:—

Prices are steady at last week's rates as under:—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/7½ | per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, ... | 19/3 | ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

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CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED FEBRUARY 9TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Feb. | LONDON— | | | |
| 3 | Price's Patent Candle Co. | Lamp | 255,120 | Kustendje |
| 3 | The Deutsche Erdol Actien Gessellschaft | Benzine | 47,040 | " |
| 3 | H. P. Wheatley & Co. | " | 165,000 | " |
| 3 | Asiatic Petroleum Co. | " | 5,000 | Rotterdam |
| 3 | E. Kammer & Co. | Spirit | 20 | Libau |
| 3 | Port Authority | Lub. | 5,600 | Hamburg |
| 3 | " | " | 400 | " |
| 3 | " | " | 9,000 | New York |
| 3 | Anglo-American Oil Co. | " | 16,960 | " |
| 3 | J. Thompson | " | 2,910 | " |
| 3 | Ragosine & Co. | " | 4,800 | " |
| 3 | Langley, Smith & Co. | " | 6,670 | " |
| 3 | Mercantile Lighterage Co. | " | 2,600 | Philadel. |
| 3 | Vacuum Oil Co. | " | 1,550 | " |
| 4 | Anglo-American Oil Co. | " | 1,000 | " |
| 4 | Langley, Smith & Co. | " | 4,240 | N. Orleans |
| 4 | Lubricating & Fuel Oils Co. | " | 3,080 | " |
| 4 | Scott's Wharf | " | 2,000 | New York |
| 4 | Ocean Oil Co. | " | 2,000 | " |
| 4 | Mercantile Lighterage Co. | " | 1,800 | " |
| 4 | E. G. Boize | Lub. Oil and Gr. | 260 | Hamburg |
| 4 | Hanseatic Maritime Agency | Lub. | 50 | Bremen |
| 5 | " " | Lub. Oil and Gr. | 90 | " |
| 5 | John Cockerill Line | Lub. Gr. | 100 | Ostend |
| 5 | " " | Benzine | 40 | " |
| 5 | Asiatic Petroleum Co. | " | 296,800 | P. Bukom |
| 5 | " " | " | 833,000 | P. Soesoe |
| 5 | " " | " | 213,000 | Rotterdam |
| 5 | Petrol Users'. &c., Assoc. | " | 6.780 | " |
| 5 | Anglo-American Oil Co. | " | 663,840 | Novorossisk |
| 5 | " " | Naphtha | 631,710 | " |
| 5 | Vacuum Oil Co. | Lub. | 10,860 | New York |
| 5 | G. W. Sheldon & Co. | " | 1,130 | Philadel. |
| 6 | Mercantile Lighterage Co. | " | 27,040 | New York |
| 6 | G. & H. Green | Lub. Gr. | 2,260 | " |
| 7 | Lennox & Co. | " | 210 | " |
| 7 | Port Authority | Lub. | 3,930 | Hamburg |
| 7 | E. G. Boize | Lub. Gr. | 1,000 | " |
| 7 | Anglo-American Oil Co. | Lub. | 1,000 | New York |
| 7 | British and Foreign Wharf | " | 130 | Antwerp |
| 7 | Bowring Petroleum Co. | " | 6,030 | Philadel. |
| | LIVERPOOL— | | | |
| 3 | Bowring Petroleum Co. | " | 120 | Hamburg |
| 3 | Pickford's | Lub. Oil and Paste | 450 | " |
| 3 | Great Western Railway | Lub. | 5,320 | Baltimore |
| 3 | J. T. Fletcher & Co. | " | 400 | Antwerp |
| 3 | C. W. Field | " | 330 | " |
| 4 | Huxley & Co. | " | 410 | " |
| 5 | " | Lub. Gr. | 200 | Hamburg |
| 5 | Burnaby & Chantrell | " | 110 | " |
| 5 | D. Currie & Co. | " | 200 | " |
| 5 | Pickford's | Lub. Oil and Paste | 540 | " |
| 5 | R. Crooks & Co. | Lub. Gr. | 100 | New York |
| 5 | Meade-King, Robinson & Co. | Lub. | 3,200 | " |
| 6 | Valvoline Oil Co. | " | 23,780 | " |
| 6 | Anglo-American Oil Co. | " | 16,000 | " |
| 6 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 6 | Anglo-American Oil Co. | " | 826,600 | New York |
| 7 | W. Crawford | Lub. Gr. | 440 | " |
| 7 | Worthington & Boler | Lub. | 3,680 | " |
| 7 | F. Leyland & Co. | " | 3,890 | N. Orleans |
| 9 | Crew, Levick & Co. | Lub. Resid | 5,600 | N. News |
| 9 | A. Hopps & Sons | " | 2,600 | Halifax |
| 9 | Bramwell, Fern & Co. | " | 2,650 | " |
| 9 | Worthington & Boler | Lub. | 5,320 | New York |
| 9 | Vacuum Oil Co. | " | 24,800 | " |
| 9 | " | " | 13,180 | " |
| 9 | " | Lub. Gr. | 1,170 | " |
| 9 | " | Lub. | 33,980 | " |
| 9 | " | Lub. Gr. | 4,000 | " |
| 9 | G. B. Taylor | Lub. | 1,200 | " |
| 9 | C. W. Field | " | 620 | Antwerp |
| 9 | J. T. Fletcher & Co. | Lub. Gr. | 90 | " |
| | BARROW— | | | |
| 3 | Bowring Petroleum Co. | Lamp | 196,000 | P. Mexico |
| 3 | Anglo-American Oil Co. | " | 561,290 | New York |
| 3 | " " | Benzine | 632,930 | " |
| 3 | " " | Naphtha | 578,670 | " |
| | BOSTON— | | | |
| 9 | W. F. Beaumont | Lub. | 640 | Hamburg |
| Feb. | BRISTOL— | | | |
| 9 | Pickford's | Lub. Oil and Gr. | 1,250 | " |
| 9 | " | Lub. | 240 | Antwerp |
| 9 | Ford & Canning | " | 960 | New York |
| | GOOLE— | | | |
| 7 | Goole Steamship Co. | " | 140 | Hamburg |
| | GRIMSBY— | | | |
| 3 | J. Sutcliffe & Son | " | 650 | Antwerp |
| 6 | " | " | 600 | " |
| | HARWICH— | | | |
| 3 | Great Eastern Railway | " | 300 | " |
| 5 | " " | " | 520 | " |
| 5 | " " | " | 20 | Hamburg |
| 6 | " " | " | 80 | Antwerp |
| 7 | " " | " | 280 | " |
| | HULL— | | | |
| 5 | Wilson's & N. E. Railway | " | 720 | " |
| 5 | " " | " | 80 | Dunkirk |
| 5 | T. Wilson, Sons & Co. | " | 33,360 | New York |
| 5 | " " | Lub. Gr. | 2,600 | " |
| 5 | W. Gilyott & Co. | Lub. | 2,120 | " |
| 6 | T. Wilson, Sons & Co. | " | 4,600 | Hamburg |
| 9 | " " | " | 280 | " |
| 9 | Wilson's & N. E. Railway | " | 240 | Ghent |
| 9 | " " | " | 80 | Antwerp |
| | MANCHESTER— | | | |
| 3 | Bramwell, Fern & Co. | " | 2,770 | Philadel. |
| 3 | F. Schofield & Co. | " | 4,970 | " |
| 4 | British Westinghouse Electric and Mnfg. Co. | " | 200 | Antwerp |
| 4 | Bramwell, Fern & Co. | " | 11,040 | Philadel. |
| 4 | Anglo-American Oil Co. | Lub. Oil and Gr. | 15,920 | " |
| 4 | Crew, Levick & Co. | Lub. | 10,630 | " |
| 4 | " " | M. Colza | 1,250 | " |
| 4 | Worthington & Boler | Turps. Sub. | 840 | " |
| 5 | D. Currie & Co. | Lub. Oil and Gr. | 410 | Hamburg |
| 6 | " | Lub. Gr. | 40 | " |
| 6 | Liverpool Storage Co. | M. Colza | 12,840 | " |
| 6 | Slatter & Co. | Lub. Oil and Gr. | 260 | " |
| 7 | Anglo-American Oil Co. | Lamp | 933,440 | New York |
| 9 | F. Leyland & Co. | Lub. | 1,400 | " |
| | MIDDLESBROUGH— | | | |
| 3 | E. Harris & Co. | " | 4,800 | Antwerp |
| | NEWCASTLE— | | | |
| 3 | P. H. Matthiessen & Co. | " | 220 | Bergen |
| 6 | " | " | 220 | " |
| | SUNDERLAND— | | | |
| 7 | British Petroleum Co. | Lamp | 942,000 | N. Orleans |
| | ABERDEEN— | | | |
| 9 | R. C. Reid & Co. | Lub. Gr. | 160 | Hamburg |
| | DUNDEE— | | | |
| 5 | D. Alexander & Sons | Lub. | 80 | " |
| | GLASGOW— | | | |
| 3 | Clyde Shipping Co. | Lub. Oil and Gr. | 720 | Antwerp |
| 3 | Anchor Line | Lub. | 61,180 | New York |
| 9 | Allan Bros. & Co. | Lub. Gr. | 800 | Philadel. |
| 9 | " | Lub. | 14,160 | " |
| | GRANGEMOUTH— | | | |
| 4 | Jas. Currie & Co. | " | 40 | Hamburg |
| 6 | W. G. Yooll & Co. | Lamp | 1,200 | " |
| | LEITH— | | | |
| 3 | G. Gibson & Co. | Lub. | 550 | Antwerp |
| 3 | " | " | 240 | Ghent |
| 5 | " | " | 800 | Antwerp |
| 5 | " | " | 3,200 | Dunkirk |
| 5 | W. G. Yooll & Co. | Lamp | 4,360 | Hamburg |
| 5 | Jas. Currie & Co. | Lub. | 240 | " |
| 9 | " | " | 480 | " |
| | BELFAST— | | | |
| 5 | G. Heyn & Sons | " | 400 | Riga |
| 9 | " | " | 610 | " |
| | DUBLIN— | | | |
| 9 | P. Murphy & Co. | " | 140 | Antwerp |
| | LIMERICK— | | | |
| 4 | Limerick Steamship Co. | " | 420 | Hamburg |
| | CARDIFF— | | | |
| 9 | Bristol Steam Navig. Co. | " | 240 | Antwerp |
| 9 | Collins & Partners | " | 240 | " |
| 9 | " " | L. G. Bricks | 240 | " |
| 9 | Furness, Witby & Co. | " | 280 | " |
| | | | 8,271,760 | |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

VOL. XXX. (*New Series.*) FEBRUARY 21ST, 1914. NO. 605.

## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### Roumania's Growing Export Trade.

THE fact that Roumania is building up a petroleum export trade of great dimensions is well-known, but comparatively few recognise to what an extent this export movement is increasing in its international importance from ear to year. During 1912, the country established a ecord when she shipped abroad approximately 850,000 ons of petroleum products, but last year this total as surpassed by nearly 200,000 tons, the increase being bout 23 per cent. This continued expansion is all he more remarkable when one remembers the general pset which was occasioned by the Balkan trouble, and hich for several weeks caused the export trade to be n a very stagnant position owing to transport being eld up from the refineries to sea-board. The export f illuminating oil and liquid fuel (residuals) form the hief classifications of the export movement, large uantities of the latter being taken under contract by he British Admiralty. But in regard to motor spirit lso, Roumania is making rapid headway, and during st year alone nearly a quarter of a million tons was hipped abroad. With the completion of the new pipenes to Constantza, the already substantial figures of oumania's foreign oil trade are bound to be considerbly augumented.

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### Oil Fuel for the American Navy.

FROM events which have recently taken place it is evident that, consequent upon their decision to largely displace coal by the use of oil fuel upon the units of its Navy, the United States Government are now bent upon securing ndependent supplies rather than be at the mercy of e various oil-producing companies. How far the overnment will go in the matter is at the moment not uite clear, though the suggestion is that they will not nly control their own supplies, but operate the producing fields and manipulate the necessary pipelines. n elaborate statement has been prepared by the ureau of Steam Engineering, and this is already efore the Committee of Naval Affairs of the House of epresentatives. The Government experts have already intimated that the oils from the Eastern fields are too valuable for use as liquid fuel; therefore the Californian fields will figure as the chief source for the supply of naval oil requirements. In this direction, however, matters are bound to move slowly for some time, since the titles of lands in the Navy petroleum reserves in California are not clear.

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### The Progress of Oil in the British Navy.

SPEAKING of oil fuel for naval requirements one is reminded of the public interest now taken in this subject in the United Kingdom, as seen from the various pointed questions put to the First Lord of the Admiralty in the House of Commons during the present week. We appreciate the fact that it is not in the interests of public service for full details of the Admiralty's programme in regard to oil fuel to be published broadcast: there are, however, certain details which affect the question, yet whose publication cannot be objected to, and these have now been embodied in a printed reply to the questions submitted by Lord Charles Beresford. They are to the effect that the following vessels built or building are fitted or are to be fitted for burning oil fuel only:—battleships, 5; light cruisers, 16; destroyers, 109; torpedo boats, Nos. 1 to 36 (inclusive). Vessels to be fitted for burning oil and coal are as follows:—battleships, 9; battle cruiser, 1; light cruisers, 2. Completed vessels fitted to burn oil and coal:—battleships, 29; battle cruisers, 17; light cruisers, 20; torpedo-boat destroyer, 1. Vessels partially fitted to burn oil and coal, 7.

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### The Coming World's Oil Exhibition.

EXACTLY one month to-day and the World's Oil Industries Exhibition will open its doors at Earl's Court, S.W., for a fortnight's run. As may be surmised, matters are now steadily moulding themselves into shape, and it is already an assured fact that, large as the exhibition building is, it will be taxed to its utmost to hold the various exhibits which will represent all phases of the petroleum industry. It is, perhaps, not policy at the moment to detail the long list of exhibitors who have already booked space, but we have had an opportunity of perusing the list and find that it is very representative. One outstanding feature of the Exhibition will be the working exhibits, some of which will be in the grounds on account of lack of space within the building itself. Then the series of lectures which have been arranged promise to be of a highly interesting order, while the cinematograph films should also be particularly educational. Last week we had the privilege of witnessing a private view of these at Messrs. Pathé Frères, and we feel sure that our opinion as to their educational nature will be endorsed by all who see them. One of the most interesting films is that depicting the Baku fields, and showing the drilling of wells, the refining of petroleum at Blacktown, etc., while without doubt what may be classed as the finest fire picture yet filmed is that of the burning of the Bayonne refinery some time ago. The colour effects are little less than marvellous. Taken all round, the exhibition will be one well worthy of the world's petroleum industry.

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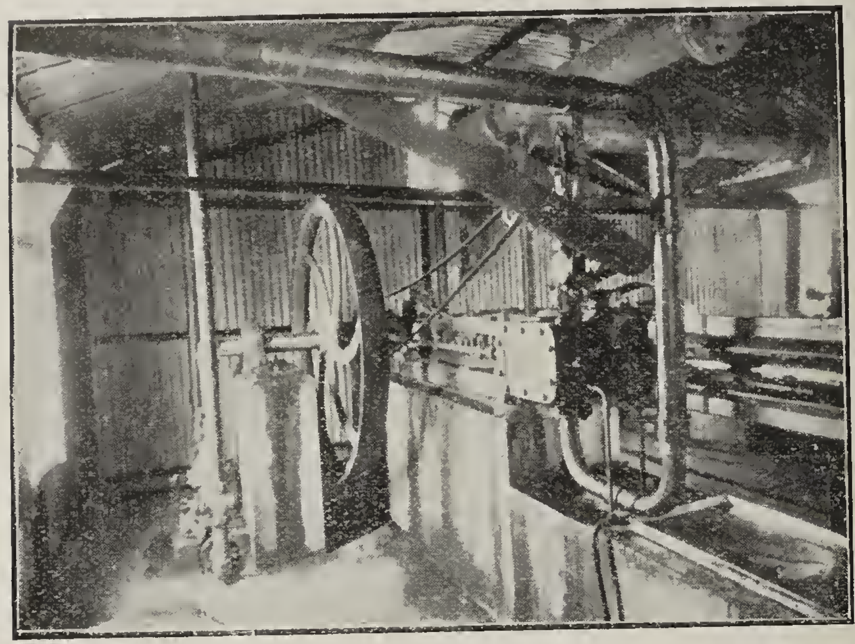
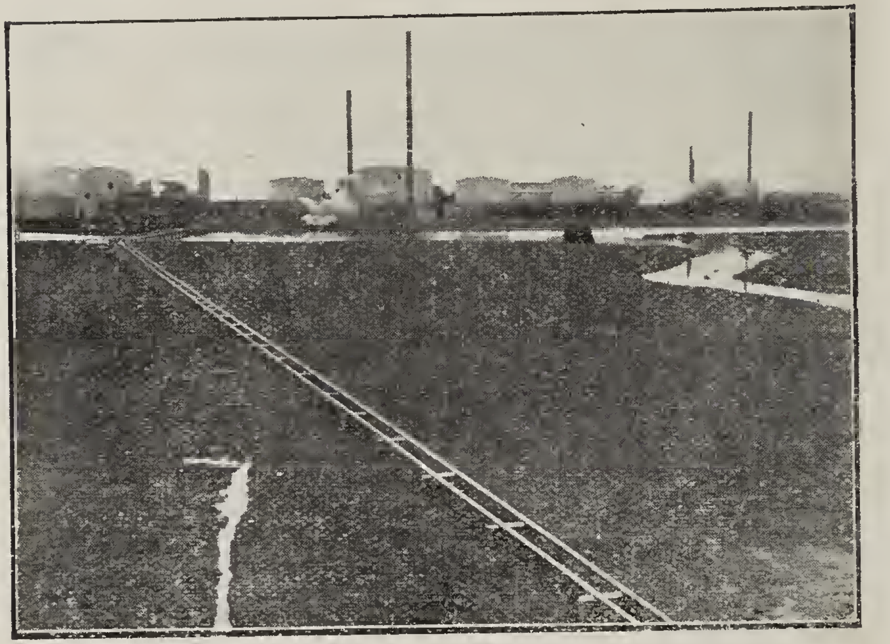
## THE MOTOR OWNERS' PETROL COMBINE.

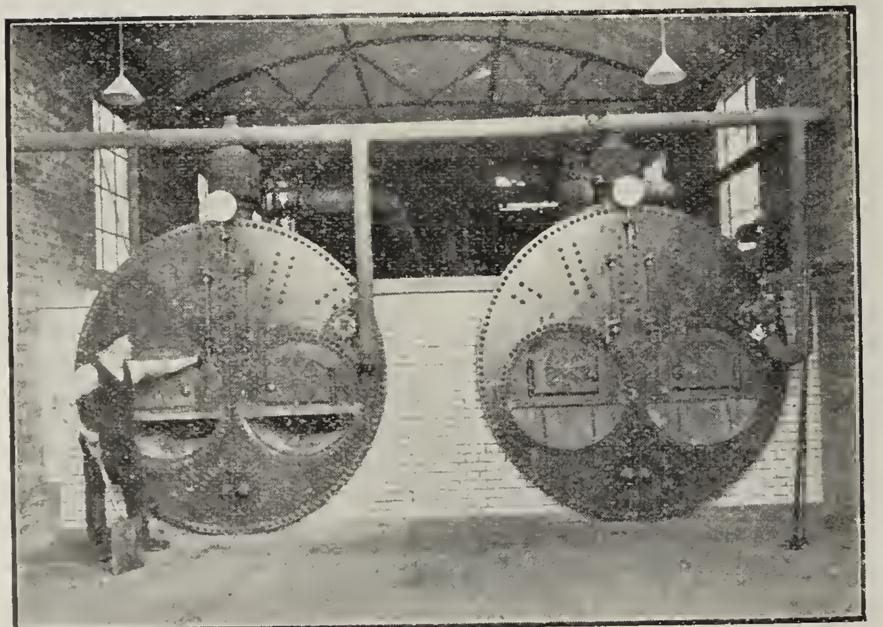
Additional Views of the Installations at Thames Haven.



A Corner of the Pump House.



Pipelines from the Refinery to the Bulk Storages.



The Boiler-house at the Refinery.

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**Launch Photographs.**—We regret that we omitted in our last issue to state that the whole of the illustrations of the oil-tanker launches and trial trips on the Tyne and Wear were from photographs taken by the Topical Press Agency, Red Lion Court, London, E.C.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended February 14th was 130,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended February 15th was 314,095 poods, or about 5,066 tons. The total production for the year from January 14th to February 15th was 1,392,265 poods, or about 22,456 tons. The total production for the corresponding period last year was 1,258,345 poods, or about 20,296 tons. Price of crude oil at Baku is now 40 copecs per pood.

Maikop Victory Oil Company, Ltd. -- The production of crude oil for week ended February 14th was 31,557 poods, or 509 tons.

European Oilfields Corporation, Ltd. — The production for the week ended February 15th was 98,500 poods, or 1,588 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended February 14th was 128,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended February 14th was 22,819 poods (368 tons).

Maikop New Producers, Ltd.—Production for week ended February 14th was 6,200 poods (100 tons).

British Maikop Oil Company, Ltd.—Production for week ended February 15th was 12,298 poods, or 198 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended February 7th, 127,375 poods, or 2,054 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended February 10th was 340,132 poods, or 5,486 tons. Corresponding period last year, 1,566 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended February 15th was 87,266 poods, or 1,407 tons.

Maikop Midland.—Production at Krimskaya for week ended February 14th was 4,400 poods, or 71 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended February 14th was 19,044 poods (307 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended February 15th was 1,600 poods (26 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended February 14th was 3,300 poods, or 53 tons.

Cheleken Oilfields, Ltd.—Estimated production for the fortnight ending February 14th was 1,550½ tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone City 8840 (4 lines).
LONDON, E.C.

# THE MOTOR OWNERS' PETROL COMBINE, LTD.

## INTERESTING SPEECHES AT THURSDAY'S LUNCHEON AT THE SAVOY HOTEL. VIEWS OF THE REFINERY AT THAMES HAVEN

A year ago the Motor Owners' Petrol Combine, Ltd., was formed, and successfully appealed to the motoring public for capital with which to carry out a programme destined to be of incalculable benefit to the general motoring public, inasmuch as it aimed at providing motor spirit from absolutely independent sources of supply, marketing the spirit at reasonable prices, and at the same time, while giving the public a better motive power, it promised to see that the profits of the retailer were greater than those stipulated by the old-established motor-spirit importing and distributing concerns.

General View of the Distilling Plant.

On Thursday last an influential company of guests assembled at the invitation of the directors of the Combine at luncheon in the White Room of the Savoy Hotel, London, W.C., the occasion being one to mark the general fulfilment of the promises stated in the prospectus of the Combine, and the commencement of the distribution of the Combine's motor spirit upon a general scale, not only to its large body of shareholders, but to the motoring public generally.

The Right Hon. the Earl of Carrick, Chairman of the Motor Owners' Petrol Combine, was in the chair, being supported by many gentlemen well known in the world of automobilism and the petroleum industry, as well as a representative gathering of the representatives of the Press. Among those present our representative noticed Mr. A. St. George Caulfield, Mr. Charles Jarrott, and Mr. A. E. Hodgson (Directors of the Motor Owners' Petrol Combine—the latter gentleman being the Managing Director), Sir R. Moncrieffe, Mr. Stenson Cooke (Secretary of the Automobile Association), Mr. Orde (R.A.C.), Colonel F. J. P. Butler, Mr. A. C. Adams (Managing Director of the London and Thames Haven Oil Wharves, Ltd.), Mr. T. Clarkson, J. Burgess (London and Thames Haven Oil Wharves), Dr. P. Dvorkovitz, Professor Vivian Lewes, and others.

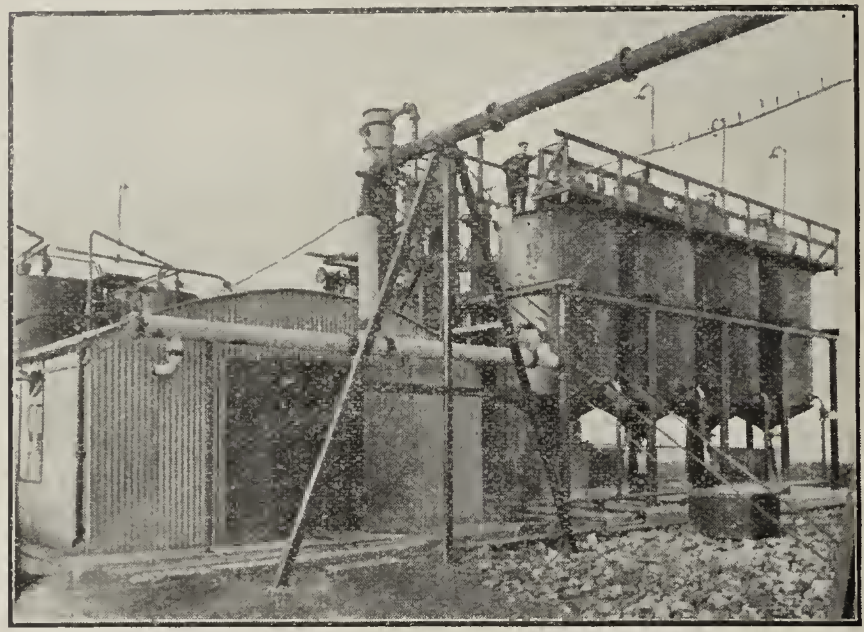
After proposing the usual loyal toasts, the Chairman asked the Company to drink to the success of the Motor Owners' Petrol Combine. In doing so he explained that the Combine was formed about a year ago for the purpose of supplying motorists with motor spirit which should be free from the present monopolistic groups, and at the same time that those participating should have the opportunity of taking to themselves some of the substantial profits made by the petrol-distributing companies. He was pleased to say that in spite of the fact that only twelve months had elapsed since the company first came to the notice of the public, the Directors had rigidly carried out the aims mentioned in the prospectus, and they were there that day to celebrate the fact that the Combine spirit was now upon the market for general consumption. Those present would possibly remember that there was never any suggestion that the Combine intended to supply motor spirit at cutting prices; they aimed simply at supplying a better article, and carrying out a programme under which those who held debentures or shares in the Combine would be entitled to such bonuses as their purchases might justify, in addition, of course, to the dividends which they would receive upon their investment.

The Combine had acquired several valuable oil properties in the Galician fields, from which a net profit of over £30,000 per annum was being made when their company acquired the properties, but he was glad to say that since the Combine was formed the earning capacity of those properties had considerably enhanced, as was seen by the fact that they were now earning over £50,000 per annum. The Galician properties had been carefully selected, and apart from the fact that they were producing large quantities of crude oil of a high grade, there was ample room for development. Four new wells were at the moment in the course of drilling, and there was every indication that in the not distant future those properties

Another View of Plant, showing Dephlegmating Columns.

would be yielding considerably greater profits than they were at the moment. Their new "Morgan" well was on ground adjoining the famous "Rockfeller" well, and they had hopes that it would prove equally remunerative.

But in addition to their oil-producing properties, the Combine had built an up-to-date refinery at Thames Haven, which was capable of turning out 3,000,000 gallons of motor spirit per annum, but it was the intention of the Directors to increase its capacity as occasion warranted by the building of additional units. The distilling plant was of the most modern character, and had been supplied by Messrs. George Scott & Sons to work on the vacuum principle and capable of working at close fractions. He could assure the company present that the Combine intended to meet the needs of the market for a really good motor spirit at a reasonable price, and to do this they would run their refining plant night and day.



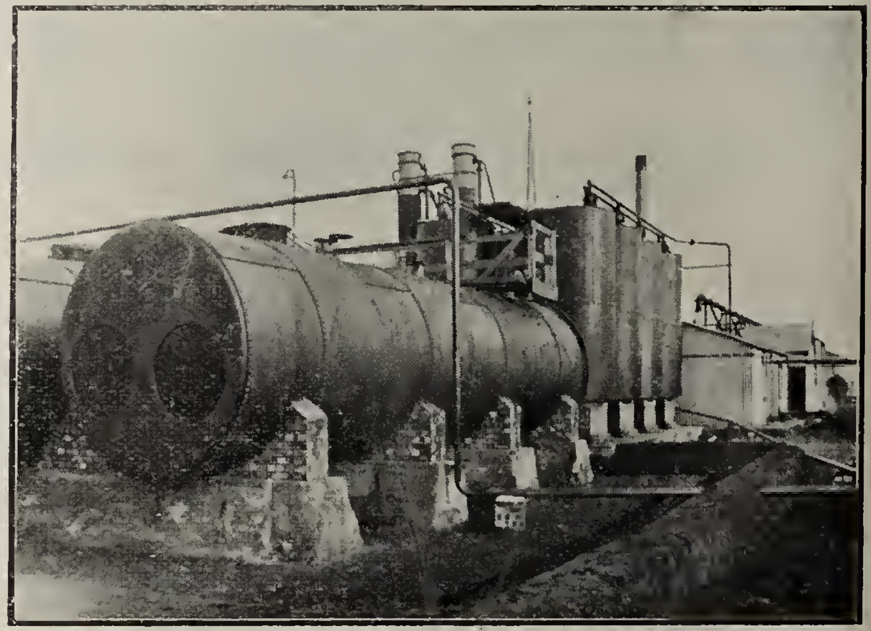
View of the Agitators.

Mr. Charles Jarrott, in an interesting speech, recalled the great annoyance which motorists had in past years been subject to owing to the ever-increasing price of spirit, and referred to the conferences which had been held on the question of supplies, yet which had all without exception come to nothing tangible. The question therefore of having a motor spirit from absolutely independent sources, imported, refined and marketed by a concern which was called into being for the benefit of the general body of motorists, was of vital importance to the motoring industry. To-day, however, the Motor Owners' Petrol Combine was in a position to commence serious business—in fact it had already started it—and was therefore a factor in supplying the needs of the motoring community. So far as their Company was concerned, it was the idea to organise distribution throughout the country, but they intended to start for the time being to deal with the London area, and for that purpose they now had motor vans, horse-drawn vehicles, etc. They had to move somewhat slowly, but soon they were embarking upon the scheme of supply- the South Coastal towns, and would eventually embrace the Midlands and the North of England. He had, however, to impress the one fact upon those present, that the Motor Owners' Combine was not formed for the purpose of supplying cheap petrol; they were in existence to do business profitably for the benefit of their shareholders. As to the general retail price, the Combine motor spirit would be 1s. 7d. per gallon retail, or the same price as the second grade other spirits, and the retailers would receive a profit of 3d. per gallon on its sale, as compared with 2d. per gallon they ordinarily received by stocking other motor spirits. He held in his hand a report from Professor Lewes, the well-known expert, who, having examined the spirit, and tested it in a practical manner upon a car, said that it was excellent in every respect. His (the speaker's) own tests absolutely corroborated that opinion, for he had not only got greater mileage from the spirit, but the engine by its use became more flexible, and got away far quicker than ordinarily.

It was in such circumstances that the Motor Owners' Petrol Combine commenced its commercial career, and he trusted that, with the support of the motoring public, it would enjoy a long run of prosperity.

At the suggestion of the Chairman, Professor Lewes made a few remarks, pointing out that the Combine's spirit was a blend of the finest spirit it was possible to produce. He was convinced it was equal to any spirit on the market, if not appreciably better.

Mr. Massac Buist, replying to "The Press," said the Press were grateful to the Combine, because it had put its cards on the table, and said in no uncertain voice what it intended to do. He was sure his colleagues and himself wished it every possible success.



Side View of the Receivers.

The interesting event then came to an end, the company afterwards inspecting some very fine photographs of the Combine's refining plant at Thames Haven, the majority of which views are reproduced in this issue.

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### B-B. EXTENSION SYNDICATE, LTD.

Registered on February 10th, by Kerly, Sons & Karuth, 10 & 11, Austin Friars, E.C. Capital £15,000 (14,950 "A" shares of £1 each, and 1,000 "B" shares of 1s.). Objects: To acquire oilfields, oil-bearing properties, mines, and mining rights, etc., and to sink wells, manipulate, and prepare for market petroleum and other mineral oils. Minimum cash subscription, seven shares. First directors (who are to number not less than two nor more than four) are H. L. Chittenden and W. Maclachlan. Remuneration (other than managing director's) £50 each per annum. Registered office, 65, London Wall, E.C.

# MISCELLANEA.

## RETIREMENT OF MR. W. C. TEAGLE FROM THE STANDARD OIL COMPANY.

THE REVIEW understands that Mr. Walter C. Teagle, one of the directors of the Standard Oil Company of New Jersey, has resigned his position as vice-president and director of the company. Mr. Teagle has been associated with the Standard Oil Company for many years, taking to himself a great portion of the control of the export department, and having been responsible for much of the progress which the company has made in the foreign markets.

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## BENZOLE REPLACING BENZINE IN GERMANY.

ACCORDING to a communication of the American General Council in Berlin there is in Germany a considerable increase in the consumption of benzole, which is now largely replacing benzine. In 1907 the consumption of benzole by motorists totalled 6,000 tons, and in 1911 this figure rose to 20,000 tons, while according to the report of the German Bensole Association the consumption in 1913 amounted to 80,000 tons, and during 1914 it is expected to amount to 95,000 tons. The specific gravity of the benzole in use is 0.88. The production of benzole is controlled by the German Benzole Association, according to which the production of benzole in 1913 amounted to 140,000 tons, and in 1914 will exceed the figure of 155,000 tons. Of these quantities, about 60,000 tons are usually consumed by chemical cleaners, for carburation of gas, the india-rubber industry, etc. The German Benzole Association represents a kind of monopoly, and is quite able to sway the prices. When first entering the market its price was from £5 to £6 a ton; at present it is slightly lower than that of benzine.

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## AMERICAN PETROLEUM EXPORTS DURING 1913.

### Preliminary Figures.

AS recorded in the last issue of the REVIEW, a total of 2,106,000,000 gallons of petroleum products were exported from the United States during the past twelve months, as compared with a total export of 1,844,545,000 gallons for the preceding twelve months and 1,736,230,000 gallons for 1911. The figures for 1913 show a gain of over 14 per cent. upon those for 1912, and constitute a record in the annals of the American petroleum export trade.

The value of the exported products for the twelve months was $147,047,187 as compared with $121,874,988 during 1912, and a total value of $104,386,000 for the twelve months of 1911, the gain last year, therefore, having been over 20 per cent. upon the value of the exported petroleum products for the previous twelve months.

The total exports of the various products and their respective values are given in the following table, together with the details of the export figures for 1912:—

| | | Gallons. | Dollars. |
|---|---|---|---|
| Crude oil ... ... ... | 1913 ... | 184,991,667 ... | 8,074,767 |
| " ... ... ... | 1912 ... | 172,822,223 ... | 6,373,771 |
| Illuminating oil.. ... | 1913 ... | 1,117,996.475 ... | 72.135,201 |
| " " ... ... | 1912 ... | 1,023,681.414 ... | 61,918,491 |
| Motor spirit ... .. | 1913 .. | 176,878,845 ... | 26.601,488 |
| " " ... ... | 1912 ... | 175,089,771 ... | 19,364,032 |
| Lubricating oil ... ... | 1913 ... | 205,825,151 .. | 29,289,705 |
| " " ... ... | 1912 ... | 213 559,784 ... | 27,860,743 |
| Gas and fuel oil ... ... | 1913 ... | 420,467.121 ... | 10,846.026 |
| " " ... ... | 1912 .. | 259,392.044 ... | 6,357,951 |

From the above statistics it will be noted that during the past year American exports of crude oil have increased over 7 per cent. in quantity and 28 per cent. in value as compared with those of the previous twelve months; illuminating oil exports have increased 9 per cent. in volume and 16 per cent. in value; motor spirit exports have during the past year increased one per cent. in volume and 37 per cent. in value, while gas and fuel oils have increased 62 per cent. in volume and 70 per cent. in value, as compared with the exports from America during 1912. The only decline is seen in the exports of lubricating oil, which lost over 3 per cent. on the year, but owing to enhanced prices the value of the exported products was 5 per cent. more than in 1912.

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## MESSRS. NOBEL BROS. ANNUAL REPORT.

### A Ten Per Cent. Dividend.

THE annual report of the Board of Messrs. Nobel Bros. for the past financial year, and which was submitted to the shareholders a few days ago at the general meeting, stated that in order to maintain the company's crude oil output at the previous level, it will be necessary for drilling to be on a larger scale during the present year, and that for this purpose it must be increased from 13,900 sagenes to 16,500 sagenes. Expectations for 1913 were not entirely fulfilled—on the one hand, owing to the high prices, which restricted the purchase of liquid fuel, and, on the other hand, owing to the two months' strike on the fields. The turnover for 1914 was 153,300,000 poods, as against 143,100,000 poods in the previous year, this including 72,000,000 poods of the company's own production. The net earnings of the Company are estimated at 5,915,148 roubles which is regarded as very conservative, especially as prices have been put at a low level—for crude oil in Baku 30 copecks and for illuminant oil 35 copecks. With regard to new acquisitions and plant these are valued at 3,458,000 roubles. The Board point out the fact that 9,076,000 francs have been expended in purchasing the shares of the Société Anonyme d'Armement d'Industrie et de Commerce, instead of 2,946,000 francs, as estimated, it having proved necessary to increase the capital to 15,000,000 francs, and not to 10,000,000 francs as originally contemplated. This increase was made in order that the houses of Nobel and Rothschild could obtain a majority of the votes.

The Board has acquired an interest in the Chelcken Dagestan Company in Grosny, and advanced to the latter an amount of 2.5 million roubles, this loan to be redeemed by deliveries of crude oil at a price agreed upon. The position of the Company has, as a result, improved to such an extent that they are able to pay a dividend of 10 per cent. for the past year.

# DAMAGE BY WATER IN CALIFORNIA OILFIELDS.

By Messrs. F. McN. HAMILTON (State Mineralogist) and R. P. McLAUGHLIN.

(*Concluded from page* 180.)

Three operating companies in the Coalinga field were troubled with water in a group of wells. Each one thought that his own wells were perfect, and that one or both of the neighbours had wells which were flooding the entire group. The idea was so strong, that it finally became a personal matter between the superintendents, who ceased to exchange information. Finally, a plan of arbitration was adopted as being the only solution. Each of the three arbitrators was a successful operator in charge of property. The Commissioner's file of records was not at that time complete and the board had to make some investigations to supply such information as his office can now fully furnish.

Under the direction of this board work was done by the three companies, and in four months' time the trouble was absolutely cured. It was caused principally by one well where chemical action of the water had eaten through the casing which had originally shut out the water. A single hole one half inch in diameter had flooded six wells.

The important lesson taught by the work of this board is that *their first steps in the work were :* (1) The collecting from the three superintendents all available information relating to the history of all the wells ; (2) An accurate sampling of the product of each well, (two or three were pumping water only and several others were making about 50 per cent. water) ; (3) Making drawings of all the well logs showing the relative positions of all the underground formations and various strings of casing.

Then they directed the three companies what repairs and experimenting they must perform on the wells. *They did not* themselves do any of the actual work of repairs nor even specify in detail how it should be done. Their work *was entirely advisory*, and they were *backed up by a contract* which insured that their advice must be followed.

If the accomplishments of such a system as is in operation at Colinga were limited to simply remedying the damage done by water it would pay for itself many times over ; but besides this it gives promise of other benefits measured in dollars and cents. Already the work of the present Commissioner has convinced some operators that some of their wells have passed through oil sands which were not recognised as such ; and they will probably now go back and test these sands with the expectation of finding more oil than their first calculations indicated. It has also definitely shown that water occupies the same sands that farther up their dip have produced oil, and that as the oil is removed the water gradually creeps upward along the stratum, making it necessary to shut off this particular bed to prevent its flooding the other sands which have not yet been drained of all their oil contents. This phenomenon of gradual encroachment is known as *edge water*, and it must be intelligently dealt with.

Conclusions drawn by the writer from the evidence already partly outlined are as follows :

Responsibility for the serious damage by water rests upon two groups of people, namely, *superintendents* in the field, and *company officials* to whom they report. Any operator is liable to deceive himself as to the conditions of his property. It is the consensus of opinion of the operators on the field, that a superintendent who personally refuses to exchange information on underground conditions with all of his neighbours and with the county oil well commissioner, is not fitted to hold the position. Company officials who do not take the trouble to satisfy themselves that the superintendent does these things in an open minded and fair manner have no grounds for complaint if their property is ruined, and furthermore, they are in the same position towards the community as a man would be, should he deliberately allow his house to catch fire where it would certainly burn three or four others belonging to neighbours.

Some of the problems that remain to be solved by the operators in the Coalinga field are as follows :—

(1) The exact location of the beds and the composition of their contained water which destroys both steel and iron casing in from two to five years. At present it seems probable that it is the so-called "black sulphur water."

(2) The possibility of coating casing with paint or cement that will resist the chemical action. This may be difficult to accomplish, as the friction in placing the casing will tend to scrape off any coating. However, experiments should be tried, as some may succeed and none will be harmful.

(3) The possibility that some metal or alloy may be better than that used in the casing at present on the market.

(4) Means should be provided whereby the Commissioner will be informed of the amount of water in all the wells in the field.

(5) A means of co-operation among all the superintendents and officials is desirable and will repay all those taking part. Such an end will be accomplished by continuing the meetings of the Coalinga Oil men's Association, which meets for discussion of problems of interest. At each meeting a paper has been read by some man of experience.

(6) It will be necessary to provide some means whereby wells belonging to a financially embarrassed company may be repaired ; and also to force, preferably by arbitration, some operators to repair their wells.

A movement is underway to combine the various operators under a contract similar to that above referred to in the arbitration. By this means they can repair damage occurring on their own properties, and some of the largest operators are confident that the law affords ample relief for damage done by operators who refuse to enter into the contract.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | $\frac{5}{8}-\frac{11}{16}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1-1\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/9-6/3 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319.181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 31/0-32/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 34/0-34/6 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 19/6-20/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}-1\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 14/3-15/3 |
| Shell Transport and Trading | | | |
| Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{8}-5\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | $10\frac{1}{2}-10\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 714 | 716 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,190 | 3,210 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 267 | 268 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,550 | 19,650 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,014 | 1,017 |
| Russian Naphtha Society ... ... | 100 | 266 | 268 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 246 | 248 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 35/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 88/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 7/9 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 42/9 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 37/0 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | $5/4\frac{1}{2}$ |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{7}{16}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 10/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 70/3 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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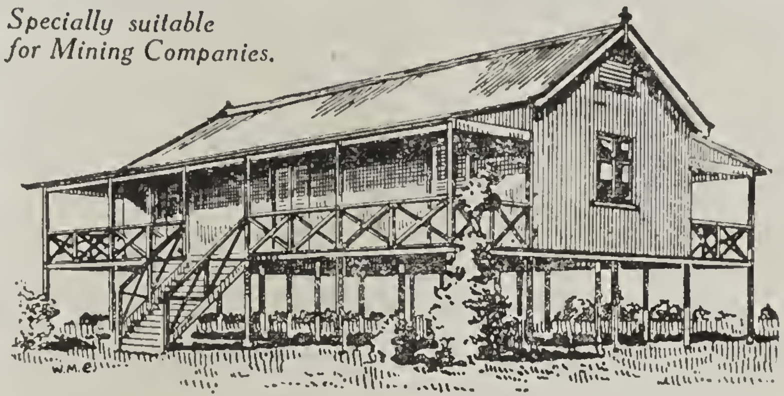

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PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, FEBRUARY 21ST, 1914.

## THE WORLD'S PRODUCTION OF PETROLEUM DURING 1913.

THOUGH comparatively little time has elapsed since the passing of 1913, it is possible to deal in some detail with the production of crude oil throughout the fields of the world for the past year, since, inasmuch as the REVIEW generally published the output of the principal fields month by month, the compilation presents no difficulty once the crude-oil production for the last month of the year is announced.

The present is without doubt an "oil age." We see the extension of the consumption of petroleum products in every direction and upon every market of the world, and it follows as a commercial principle that, with the consistent increase in the utilisation of petroleum products, the production of the article is likewise expanding. But not only so. Those interested in the production of crude oil appreciate the one drawback which has prevented the greater adoption of its various products—the fact that there is ever present that feeling that oil supplies may suddenly be cut short and that a famine in petroleum products may at any time come upon the world. The world's producers to-day are, therefore, determined to strain every nerve in order that the crude oil output may be maintained at a figure limited only to the market demands and the transport facilities. This is clearly seen by those who have followed the varying conditions in the numerous producing fields during the past year.

The quotations of crude oil have been such as to stimulate exploitation, and in many cases the search for new regions and for extensions to the older districts have been eminently satisfactory. Yet after all there is a limit beyond which development cannot proceed unless accompanied with a decline in prices—a possibility which is not desired by any oilfield operator or oil producer. Enormously increasing production and a highly profitable level of prices do not go hand in hand. The law of supply and demand prevails, and when once there is a super-abundance of crude oil above ground in the oilfields of the world, then most assuredly will quotations commence to weaken, in which case it is difficult to see where they will stop. It has been this one fear which has operated in the American and other fields during the past year: if it were necessary, production could be immeasurably increased, but in such case it is a foregone conclusion that prices would suffer,

Consequently who can blame the producers in the Mid-continent or in the Californian fields for limiting their output as much as possible, in order to continue the run of healthy prices? At the moment we know production is somewhat lagging behind consumption, and rightly so: this must not, however, be taken to suggest that the present output of crude oil has reached the zenith of its volume in the world's fields. It is simply a wisely moulded policy of the producers, who rather than become over-stocked with the raw material, prefer to run hand in hand with deliveries, for by thus saving, the great accumulation of stocks are materially assisting the present healthy tone which permeates the oil market to continue indefinitely.

In spite, however, of the measures which in many fields have been taken to curtail the great increase in the output of crude oil, the production of petroleum in the world's fields during 1913 reached a new record, as is seen from the following table in which the figures are given in barrels (estimated upon the broad basis of seven to the ton):—

| | 1913.<br>Barrels. | 1912.<br>Barrels. | 1911.<br>Barrels. |
|---|---|---|---|
| United States ... ... | 240,000,000 | 220,000,000 | 220,000,000 |
| Russia ... ... ... | 62,500,000 | 63,000,000 | 67.000,000 |
| Galicia ... ... ... | 7,600,000 | 8,000,000 | 9,000,000 |
| Roumania ... ... ... | 13,200,090 | 12,000,000 | 11,000,000 |
| Sumatra and Borneo ... | 13,500,000 | 13,000,000 | 11,500,000 |
| British India ... ... | 7,500,000 | 7.500,000 | 7,000,000 |
| Mexico ... ... ... | 22,000,000 | 16,500,000 | 11,000,000 |
| Sundries, including Japan, China, Peru, Germany, Canada, Java, etc. ... | 12,000,000 | 10,000,000 | 6,500,000 |
| Totals ... ... | 378,300,000 | 350,000,000 | 343,000,000 |

From the above table, it will be noticed that the production of crude oil throughout the world last year was an advance of about 4,000,000 tons upon that of the preceding year, which in its turn was 1,000,000 tons in excess of the figures for 1911.

The increase is shared by several important oil producing countries, but in the greatest proportion by America, where, in the face of all efforts towards curtailment, an increase of approximately 3,000,000 tons on the year is shown. Had the capabilities of the oil regions of the States been allowed to pour forth their flood of oil above ground, there is not the slightest doubt that the production from those fields would have shown an increase of at least 10,000,000 tons, the greater portion of which would have come from California. As it was, the year's yield has been sufficiently great to take up all additional storage accommodation, while the increased pipeline arrangements have been taxed to their full capacity.

Mexico comes next in its increased output, but even this is merely nominal, for it is an open secret that the largest producers in the Republic are practically shut down until such time as an adequate demand is created for their outflow. As to Roumania, petroleum affairs have pursued a steady course during the past year, apart from the Balkan trouble which not unnaturally upset operations on the fields, and thus materially reduced the total production, which, as it was, met with ever present difficulties in regard to transport. During the present year however, matters will be considerably improved in this respect, and it is not too much to anticipate a greatly increased output of crude oil, more particularly from those new and rich fields which are now entering the commercial producing stage.

The pressure of space in these columns forbids our touching upon the other well-known fields of the Eastern hemisphere, but a study of the table will convey to our readers a clear impression of the general trend of events, all of which point to a crude oil output for years to come sufficient to meet almost unlimited requirements.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO FEBRUARY 16th, 1914.

[ALL RIGHTS RESERVED.]

IN GALLONS.

| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Feb. 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. | Since Feb 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. | Since Feb. 9. | From Jan. 1. |
| Belgium .. | — | — | 19,530 | 91.680 | — | — | — | — | 4,660 | 32,220 | — | — | — | 520 | 24,190 | 124,4 |
| Canada .. | — | — | — | 4,400 | — | 7,850 | — | — | — | — | — | — | — | — | — | 12,2 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 7,107,800 | — | — | — | — | — | 7,107.8 |
| Germany .. | 10,770 | 25,050 | 24,150 | 503,530 | — | — | — | — | — | — | — | — | — | — | 34,920 | 528,5 |
| Holland .. | — | — | 270 | 2,680 | — | — | — | 55,000 | — | 1,093,780 | — | — | — | 590 | 270 | 1,152,0 |
| Mexico .. | 3,450 | 1,538,130 | — | — | — | — | — | — | — | 754,170 | 64,850 | 798,650 | — | — | 68,300 | 3,090,9 |
| Roumania .. | — | 1,958,620 | — | — | 875,000 | 875,000 | — | — | — | 983,380 | — | 1,207,910 | — | — | 875,000 | 5,024,9 |
| Russia .. | 1,502,000 | 1,502,000 | 240 | 626,710 | — | — | — | — | — | 3,202,880 | — | — | — | — | 1,502,240 | 5,331,5 |
| U.S.A. .. | 2,451,570 | 17,718,000 | 551,960 | 6,036,760 | 2,600 | 13,480 | — | 11,990,810 | — | 1,211,600 | 644,640 | 1,328,370 | 32,310 | 104,080 | 3,683,080 | 38,403,1 |
| Other Countries | — | — | 25,210 | 49,400 | — | — | — | — | — | — | — | 1,030 | — | — | 25,210 | 50,4 |
| | 3,967,790 | 22,741,800 | 621,360 | 7,315,160 | 877,600 | 896,330 | — | 12,045,810 | 4,660 | 14,385,830 | 709,490 | 3,335,960 | 32,310 | 105,190 | 6,213,210 | 60,826,0 |

# NOTES FROM THE OILFIELDS.

## MERICAN.

**A New Company in the Alberta Fields.**—An influential ew company has recently entered the Alberta fields of Canada, ith a capital of $5,000,000. The syndicate has now placed ntracts for the drilling of threc test wells in the Brooks field.

**Activity in the Caddo Field.**—The Caddo field of Louisiana receiving great attention and many new concerns are about to ill wells. The supply companies are having a difficult time in tting out the large number of orders which are on hand for oil-aterials. The De Soto parish promises to be the region where e greatest portion of the new work will take place.

**Californian Production.**—Complete figures are now published the crude oil output in the fields of California during December, e actual production having been 8,597,800 barrels. This proction came from 5,788 wells, which is 60 wells less than were oducing for the preceding month. During the month the nset-Midway fields produced nearly 4,000,000 barrels.

**Recent Good Wells in *Mexico*.**—The Freeport Mexican Oil mpany has recently brought in a well near Panuco which is lding 8,000 barrels daily, while in the Buena Vista section, the mpico Navigation Company has a well giving 2,000 barrels ily. The Schell Company's gusher, brought in some weeks ago, reported to be good for 35,000 barrels daily, which is said to a very conservative estimate of its capabilities.

## USSIAN.

**Contract for Residuals.**—On February 17th a competition s opened for the supply to the State Railways of 15,000,000 poods residuals during the navigation period of 1914.

**Liquid Fuel Congress.** — The Council of Ministers has thorised the Moscow Exchange Committee to convocate a special ngress to discuss the question of mineral fuel in Russia.

**Light and Heat *Siezd*.**—The Imperial Russian Technical ciety at the end of this month is opening a special siezd of perts on the question of light and heat and fire-prevention asures.

**New Auction *Sales* of Petroliferous Plots.**—The Russian nate is expected to approve of the last auction sales of petroliferous ts on February 28th. At the same time the date will be fixed the third auction sale of plots.

**Petroleum and Coal.**—In view of the high prices for petrom, some Volga manufacturers have decided to form a company coal mining in order to satisfy their own demands for fuel. e new company will acquire in the Dopez area a mine at a cost of ut 2,000,000 roubles.

**he Nineteenth *Siezd* of the *Mining* Industry in the al.** — At the end of this month the nineteenth siezd of the ning producers in the Ural is to be held at Ekaterinburg. e siezd will take place under the chairmanship of Mr. Khavanski, l will discuss all questions connected with this industry.

**ining Institute at Ekaterinburg.** — The Council of nisters has decided to submit to the Duma a project of a mining titute at Ekaterinburg, the cost of the establishment of which stimated at 2,840,000 roubles. The new mining institute will iver diplomas for mining engineers, with all their rights and vileges.

**uban Petroleum Plots.**—The Kuban Administration has d an auction sale to take place on July 9th next at Ekaterindar the lease of four petroliferous plots situated at Old Taitarovska, l others. The term of the lease is twenty-four years, and the per pood tax not lower than 1 copec per pood of petroleum, with a minimum of 150 roubles per dessiatine.

**Vladikavkaz Railway as Petroleum Producers.**—We have already announced the authorisation obtained by the Vladikavkaz Railway to produce oil for their own needs on the Kuban and Terski military plots on condition that the excess of liquid fuel produced should be used to supply the needs of other railways. At present the Vladikavkaz Railway demands the extension of this privilege for the districts of North Caucasia and Transcaucasia.

**Insurance Company Fighting Fires at Petroleum Stores.**—The Russian Society of Fighting Against Fires is now paying serious attention to the fighting of fires occurring at petroleum stores. In most cases the fires occur as results of careless storage of petroleum. A committee has been formed which has elaborated a regulation concerning the storage and sales of benzine and kerosene from wholesale and retail shops. The committee has considered it necessary to erect an earthen wall round places where kerosene and petroleum are stored.

## ROUMANIAN.

***Saturn* Company.**—This company has decided to increase its capital from 400,000 frs. to 800,000 frs. by issuing an additional 2,000 shares of 200 frs. each.

**Astra-Romana.**—The production of this company during the past week averaged 1,079 tons a days, of which 855 tons were obtained at Stavropoleos, 133 tons at Bana, 37 tons at Campina, 47 tons at Filipesti, and the remainder at Baicoi and Glodeni.

**Romana-Americana.**—The production of this company is still on the increase and amounts at present to 1,210 tons a day, of which 1,155 tons are obtained at Moreni, 25 at Baicoi, 20 tons at Bustenari and 10 tons at Tetzcani.

**Prices.**—The prices of crude oil continue firm as the oil has been in very great demand and the buyers readily pay high prices. The prices of products on the interior market are also very firm. All the products are in great demand, while deliveries are very difficult.

**Production.**—The general production is stationary and remains at a level of slightly over 5,000 tons a day. Well No. 8 of the Romana-Americana at Moreni continues to give by eruptions about 300 tons a day. Well No. 1 of the Columbia Company produces 60-70 tons a day.

**Steaua-Romana.**—The production of this company during the past week averaged 955 tons a day, of which 420 tons were obtained at Campina, and 315 tons at Policiori. The following wells are in eruption, No. 1 at Tzuicani with a production of 6 tons a day, No. 246 Runico with 1 ton a day, No. 16 Moineshti with 1 ton a day and No. 121 Zemesh with 5 tons a day.

**January Production.**—The production of crude oil during January (n.s.), was as follows:—Romana-Americana 35,587 tons, Astra-Romana 31,588 tons, Orion 6,236 tons, Romanian Consolidated Oilfields 4,974 tons, International 4,469 tons, Nafta 3,238 tons, Trajan Roumanian Oil Company 1,373 tons, and Aquilla-Franco-Romana 1,784 tons.

**Prevederea Company.**—Under this name a Roumanian company has been formed, for the purpose of assisting with its capital the small local petroleum enterprises, and on the other hand to sell their products, thus avoiding the ruinous brokerage charged by the intermediaries. The company will make advances on the products to small producers and refiners, will also buy first materials for the latter, will allow them credit and generally organise the sale of their products. The capital of the new company is fixed at 1,000,000 frs. in 2,000 shares of 500 frs. each.

# Protecting Oil and Gas Strata in the Californian Fields.

## FULL TEXT OF THE MINING LAW.

Mr. F. McN. Hamilton, State Mineralogist of California, has forwarded to the Review a copy of Bulletin No. 66, which has just left the press, entitled "Mining Laws," in which publication full details are given of the mining laws of the United States and California.

In view of the importance of the shutting off of water in connection with the petroleum industry, we herewith reprint the full text of the Act which has been specially drawn up to prevent injury to oil and gas strata by the penetration or infiltration of water therein. The text reads as under :—

Section 1.—It shall be the duty of the owner of any well now drilled or that may be drilled in the State of California on lands producing or containing oil, gas or petroleum, to properly case such well or wells with metal casing in accordance with most approved methods, and to effectually shut off all water overlying or underlying the oil-bearing strata, and to effectually prevent any water from penetrating such oil-bearing strata.

Section 2.—It shall be the duty of the owner of any well referred to in section 1 of this Act, before abandoning the same to withdraw the casing therefrom, and to securely fill such well with clay, earth or cement mortar, or other good and sufficient materials, used alone or in suitable combination, and thoroughly pack and tamp the same into such well to a point as far above the upper oil-bearing strata as the commissioner hereinafter provided for may decide shall be necessary, and while withdrawing the casing therefrom to effectually and permanently shut off and exclude all water underlying and overlying said oil-bearing strata, and to the satisfaction of the commissioner, whether any oil-bearing strata has been encountered or not.

Section 3.—It shall be the duty of the owner of any well referred to in section 1 of this Act to keep a careful and accurate log of the drilling of such well, such log to show the character and depth of the formations passed through or encountered in the drilling of such well, and particularly to show the location and depth of the water-bearing strata, together with the character of the water encountered from time to time, and to show at what point such water was shut off, if at all, and, if not, to so state in such log, and show the depth at which oil-bearing strata is encountered, the depth and character of the same, and whether all water overlying and underlying such oil-bearing strata was successfully and permanently shut off so as to prevent the percolation or penetration into such oil-bearing strata ; said record of well to be kept on file and subject to the inspection of hereinafter-mentioned commissioner at any time during business hours.

Section 4.—The term "owner" as herein used shall mean and include each and every person, persons, partnership, co-partnership, association or corporation owning, leasing, managing, operating, drilling or possessing any well mentioned in sections 1 and 2 of this Act, either as principal or principals, lessee or lessees of such principal or principals, contractor or contractors, and their and each of their employees. The term "oil-bearing strata" as herein used shall mean and include any bed, seam or stratum of rock or sand or other material which contains, includes, or yields earth oil, rock oil, or petroleum oil or natural gas or either of them.

In order to carry out the provisions of sections 1 and 2 of this Act, upon petition of three or more operating oil companies, within the county, it shall be the duty of the board of supervisors of said county to appoint a commissioner who shall be a practical oil man, whose term of office shall be until December 31st of the year following time of appointment or until his successor is appointed.

The duties of said commissioner shall be to see that the provisions of this Act shall be enforced.

The compensation of said commissioner shall be fixed by the board of supervisors, and shall be paid out of the general county fund.

Upon the filing of a complaint with said commissioner alleging the violation of any of the provisions of sections 1 or 2 of this Act, it shall be the duty of the hereinbefore mentioned commissioner of the county, if so requested by the complainants, to make or cause to be made, a thorough investigation of the well in question, to determine whether or not any of the provisions of this Act have been violated and for such purpose he is hereby empowered to appoint all necessary agents and assistants to conduct such examination, and such agents and assistants may enter upon the premises where such well is situated and may take charge of such well for the purpose of making such investigations. If the defendant in the action shall be convicted of a violation of any of the provisions of sections 1 or 2 of this Act, he shall, in addition to the penalties hereafter set forth, pay all reasonable and proper costs incident to the making of such investigations.

Any well drilled and abandoned, in violation of sections 1 or 2 of this Act is hereby declared a public nuisance.

If any well, under the provisions of sections 1 or 2 of this Act be declared a public nuisance, it shall be the duty of commissioner of the county in which such well is situated to enter upon the premises, take possession of such well and to abate said nuisance and to take all necessary steps to prevent the percolation or penetration of water into the oil-bearing strata. He shall keep an accurate account of the expense of such work and all expenses so incurred shall be a charge against the owner of such well and a lien upon the same.

Any person violating the provisions of this Act shall be guilty of a misdemeanour.

Any owner of any well referred to in sections 1 or 2 of this Act, who refuses to permit the commissioner to inspect the same or who wilfully hinders or delays the commissioner in the performance of his duty is guilty of a misdemeanour.

An "Act" to prevent injury to oil, or petroleum-bearing strata, or formations by infiltration or intrusion of water therein, approved March 24th, 1903, is hereby repealed.

# PETROLEUM IN CENTRAL ASIA.

(*Concluded from page* 188.)

Since Khanat and Kokand became a part of Russia in 1876, petroliferous sources have attracted great attention. The pioneers of the Russian industry tried to inaugurate their exploitation, but owing to the absence of communication with the Ferghana district and deficiency of capital, there was no success, though since the erection of the railway in 1898 to Andijan, the petroleum industry there has attracted greater attention. Several companies have been formed and the petroleum industry has developed very considerably. The first company worked at Tchimion in the district of Scobeleff, at a distance of 20 versts from the station Vanovsky, which is joined to the fields by a pipeline. One of the wells has given a spouter of a very regular production, with a daily yield of 8,000 poods. The total production of the exploitation has now reached 400,000 poods a day, of an oil of specific gravity 0.87° of a greenish-brown colour, and of a low boiling point; its composition shows it to be similar to American petroleum. In the refining the oil yields 2 per cent. of light benzine, 5 per cent. of heavy benzine, and 46 per cent. of kerosene, the remainder being residuals, which contain 9 per cent. of paraffin.

Owing to mismanagement, the exploitation did not produce good profits and was bought over by Messrs. Nobel Bros., at a nominal price. The participation of Nobel in the exploitation of Ferghana stimulated the formation of other large firms, and exploitations have been open there by the petroleum company Santo, the Richtan Company, and also by an English group. The developed oil region is situated at Maily-Sai, in the district Namangan, at a distance of 70 versts from the station Vanovski. The exploitations of the Santo Company are situated at Sel-Rokho, at a distance of 9 versts from the station Melnikovo in the Kokand district. The territory of the Santo Company is considered as exceedingly rich in petroleum. The Richtan Company has its land situated at Richtan at a distance of 46 versts from the station Serovi on the line limiting the districts of Kokand and Scobeleff.

In addition to the above exploitation there are other areas proved as petroliferous, one of which is at Kamych-Machi, in the Kokand district, where petroleum is being exploited at a depth of 70 ft., and where very rich petroliferous strata are located at a depth of 789 ft. Petroleum has also been found in the district of Namangan, outside Maili-Sai, on the affluence of the river Naryn, where petroleum penetrates to the surface by way of natural wells, of which there are over 250. All these sources form two petroliferous regions, one of which at the north east has a length of 40 versts, and traverses the district of Namangan and Andijan, and the other on the south-west extends over an area of 100 versts, traversing the districts of Kokand and Scobeleff. Besides the above areas there are a very large number of areas in Central Asia which show quite distinct traces of the presence of petroleum.

The petroleum industry in the Russian possessions of Central Asia is of course quite well known, and its importance over the whole district is very considerable. The Baku petroleum industry which supplies Central Asia is situated at a distance of over 2,000 versts, and it is only natural that the transport by rail results in such high prices that one of the most valuable products, viz, residuals cannot find any market there owing to the excessive cost of bringing it over. On the other hand, Central Asia is one of the poorest countries in fuel, which circumstance naturally hinders the development of the industry in the district. The extension of the petroliferous industry on the spot will make it possible for Central Asia to have cheap fuel, and to help its development. As regards kerosene, the excess of this will easily find its way to the markets of Kachagar and of Afghanistan, but even without this, the needs in the Turkistan district for kerosene are very high, and sufficient to secure for themselves large prospects for the petroleum industry in Central Asia.

Central Asia represents an enormous territory of 1,800,000 square verts, of which only a small part is really inhabited and has been studied in a more or less serious way, while the largest part of this enormous area is as yet absolutely unknown. It would, therefore, be logical to conclude judging by the fact of the two known districts being so rich in petroleum, that there must be extensive petroliferous areas in the districts which are as yet absolutely unknown to us. With the development of Central Asia and the extension of the railways, new petroliferous deposits of enormous value will not fail to be discovered.

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**Another Record for Pratt's Spirit.**—Mr. Hugh Gibson, on a Clyno sidecar combination, sucessfully accomplished 2,000 miles in 100 hours under official observation. 1,400 miles were covered without making a single adjustment, and on the last day the journey from Liverpool to London was accomplished non stop, this constituting a record for an air-cooled engine. The whole journey was accomplished on Pratt's Perfection, and, as Mr. Gibson states, "The fact that the carburettor never required a moment's attention speaks well for the purity and perfection of the spirit we obtained."

## SITUATIONS WANTED.

Young Englishman, recently returned from American oilfields with considerable experience in percussion and core drilling and the management of prospecting work, requires situation home or abroad. Apply Box "P. C.," care of Petroleum Review, 45, St. Mary Axe, E.C.

Oil Engineer (English), college trained, wishes executive position with oil company. Extensive European and Eastern oil experience, capable field administrator, business manager and economist in running production side. Most modern methods of utilising wastes. Valuable man as assistant to general manager. At liberty May, 1914. Reply Box "M. S. G.," care of Petroleum Review, 45, St. Mary Axe, E.C.

## AMERICAN PETROLEUM EXPORTS.

### Statistics for December.

The exports of American Petroleum products during December and their respective values are given in the following table :—

| | Gallons. | Values. |
|---|---|---|
| Crude Oil— | | |
| New York | 2,601.928 | $224,530 |
| Galveston | 1,060 | 77 |
| New Orleans | 1.234,597 | 73,859 |
| Sabine | 17,419 | 350 |
| Arizona | 1,404,345 | 52,580 |
| San Francisco | 1,204 | 64 |
| Washington | 606,285 | 11,921 |
| Buffalo | 36,768 | 4,100 |
| Michigan | 2,293,887 | 74,104 |
| Ohio | 945.000 | 27,405 |
| Totals | 9,232.493 | $468,900 |
| Totals for December, 1912 | 7,080,439 | 303,764 |
| Illuminating— | | |
| Maryland | 19,357 | $2,122 |
| New York | 58,992,852 | 4,491,647 |
| Philadelphia | 23,018,478 | 1,433,865 |
| New Orleans | 11,275,722 | 539.343 |
| Sabine | 12,516,133 | 665,322 |
| Arizona | 25.827 | 5,880 |
| San Francisco | 13,266,107 | 616,209 |
| Southern California | 780 | 139 |
| Washington | 7,396 | 1,008 |
| Buffalo | 504,065 | 42,074 |
| Dakota | 190,968 | 10,527 |
| Michigan | 86,148 | 5,493 |
| Totals | 119,903,833 | $7,813,630 |
| Totals for December, 1912 | 81,514,753 | 4,896,232 |
| Lubricating and Paraffin— | | |
| Maryland | 1,082,206 | $157,711 |
| New York | 13,195,615 | 1,692,292 |
| Philadelphia | 3,662,695 | 436,392 |
| Galveston | 21,019 | 7,272 |
| New Orleans | 234,772 | 82,302 |
| Sabine | 189,884 | 37,975 |
| Arizona | 3,145 | 950 |
| San Francisco | 109,212 | 15,257 |
| Southern California | 100 | 56 |
| Washington | 7,362 | 2,624 |
| Buffalo | 280,317 | 45,297 |
| Dakota | 28,364 | 3,601 |
| Michigan | 53,865 | 5,019 |
| Ohio | 13,253 | 2,123 |
| Totals | 18,881,809 | $2,488,871 |
| Totals for December, 1912 | 16,427,710 | 2,214,278 |
| Naphtha, Gasoline, etc.— | | |
| Maryland | 22,879 | $4,037 |
| New York | 5,130,124 | 882,673 |
| Philadelphia | 360,091 | 57,967 |
| Galveston | 9,350 | 1,453 |
| New Orleans | 646,090 | 82,039 |
| Sabine | 611.417 | 97,434 |
| Arizona | 3,809 | 900 |
| San Francisco | 667,965 | 87,478 |
| Southern California | 210 | 40 |
| Washington | 83,223 | 15,566 |
| Buffalo | 652,493 | 70,436 |
| Dakota | 149,466 | 18,733 |
| Michigan | 217,191 | 28,111 |
| Totals | 8,554,308 | $1,346,867 |
| Totals for December, 1912 | 11,061,735 | 1.558,005 |
| Residuum, Gas Oil and Fuel Oil, etc.— | | |
| New York | 7,372.028 | $323,077 |
| Philadelphia | 1,745,521 | 83,207 |
| New Orleans | 1,501,000 | 60,030 |
| Sabine | 12,570,033 | 424,959 |
| San Francisco | 33,476,405 | 584,053 |
| Southern California | 45,234 | 938 |
| Buffalo | 49,152 | 1,912 |
| Dakota | 48,641 | 1,961 |
| Michigan | 389,613 | 16,881 |
| Totals | 57,197,627 | $1,497,018 |
| Totals for December, 1912 | 27,313,529 | 686,021 |

## LAUNCH OF THE "JOHN D. ARCHBOLD."

The launch of the Standard Oil Company's tank steamer "John D. Archbold" at the yards of the Newport News Shipbuilding and Drydock Company, Newport News, Va., on January 28th, marked an important event in the development of the company's petroleum water transportation service, says the *Oil Paint and Drug Reporter*, for the new vessel enjoys a double distinction. Not only is she the largest bulk oil carrier to fly the American flag, but she is the first tanker to be built for the distinct service of the Standard Oil Company (New Jersey).

Mr. John D. Archbold, whose name is so intimately associated with the successful development of the American petroleum industry, and in whose honour as president of the company, the largest tank steamer was named, was present, with Mrs. Archbold and a party of personal friends, including Mr. and Mrs. Michael Murray Van Beuren and Mr. and Mrs. S. B. Hunt, while Mr. Archbold's daughter, Mrs. Michael Murray Van Beuren, christened the vessel.

Among those who attended the launching were Mr. and Mrs. George W. McNight, G. H. Smith, Mr. and Mrs. George B. Gifford, Captain and Mrs. William Smith, Mr. and Mrs. David T. Warden, Mr. and Mrs. John P. Krebs and Mr. and Mrs. C. J. Black, George H. Jones, C. E. Graff, A. Clarke Bedford, and J. J. C. Clarke. All of the gentlemen mentioned are officials of the Standard Oil Company (New Jersey). Other friends who attended were George D. Ali, of the Standard Oil Company of New York, and Mrs. Ali, Mr. Herbert J. Carr (Anglo-Mexican Petroleum Products Company, Ltd.) and Mr. and Mrs. J. B. Morrell.

The "John D. Archbold" is 460 ft. long, with a beam of 60 ft., and a depth of 36 ft. 2 in. to the shelter deck, and 28 ft. 8 in. to the upper deck. The vessel has a capacity of 10,000 tons deadweight. There are nine main double tanks and eight summer tanks, the latter being serviceable and supplementary to the main tanks for summer loading or if the principal cargo comprises oil of a relatively light gravity. The vessel is equipped to burn either coal or oil, and has quadruple expansion engines of 2,800 h.p., to give her a speed of 10½ knots per hour. The engines are aft. There are three main boilers with the Wallsend-Howden system of forced draught, built for a working pressure of 220 lbs., and a donkey boiler for a pressure of 180 lbs. The vessel is fitted with telemotor steering gear control and also a MacNab revolution and direction indicator, the latter to enable the captain at a glance to see if the engineer is carrying out orders from the bridge.

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## THE NEW OIL FIELD AT BELIK (GROSNY).

We learn from a Grosny correspondent that a great deal of interest is being displayed in the oil plots in the new Belik field (Grosny). There is in fact quite a mild boom in oil lands. The North Caucasian Company has struck a good show of oil in No. 1 well on the Tchermoeff plot. The manager, however, is doing everything possible to stop the flow until the pipeline and tanks have been got ready. Other wells should reach the oil source during the next few weeks.

# The New York Export Market During 1913.

## A DETAILED REVIEW OF OPERATIONS.

*From the "Oil City Semi-weekly Derrick."*

(*Concluded from page* 190.)

On January 1st, prices on stove opened up at 22.50c followed by successive advances to March 17th, when 23.50c was established. On June 19th, prices declined to 23c and to 22.50c on September 19th, closing unchanged on December 31st. Benzine 59 @ 62° was quoted at 19.75c on January 1st, followed by a 50-point advance to 20.25c on January 7th, and 50 points to 20.75 on March 17th. On June 19th prices receded 50 points to 20.25c and were again lowered 50 points to 19.75c a gallon on September 19th, closing firm at the latter figure on December 31st, showing no net change for the year, as compared with a 700-point gain for the preceding year. Prices on 10-gallon drums of naphtha 73 @ 76° opened at 32.50c and advanced steadily to 34.50c on March 17th, followed by a decline to 34c a gallon on September 19th, which price remained stationary up to the close of the year, showing a net gain in prices of 150 points, compared with a 600-point gain for 1912. Stove opened up at 27c, advanced to 28c on March 17th and remained stationary up to September 19th, when the price was lowered to 27.50, which figure remained unchanged up to the close of the year. The net advance for the year covered 50 points, against 700 points for the year 1912. Auto 68 @ 72° was quoted at 29.50c on January 1st, advanced to 31.50c on March 17th, and was lowered to 31c on September 19th, and to 30c on December 24th, remaining unchanged up to the close of the year, showing a net gain of 50 points for the year, compared with a 650-point gain for 1912. Benzine 59 @ 62° opened at 24.25c, advanced to 25.25c a gallon on March 17th and to 24.75c on September 19th, closing unchanged at the close of the year, showing a net gain of 50 points for the year, compared with a 700-point gain for 1912.

The following tables give the official high and low prices for export on various petroleum products in lots of 200-case lots quoted in cents per gallon, f.o.b. New York.

| | Naphtha. | | | | Auto. | | Benzine. | |
|---|---|---|---|---|---|---|---|---|
| | 73 @ 76°. | | Stove. | | 68 @ 72°. | | 59 @ 69°. | |
| | High. | Low. | High. | Low. | High. | Low. | High. | Low. |
| January... | 29.50 | 28.00 | 23.00 | 22.50 | 26.50 | 25.00 | 20.25 | 19.75 |
| February. | 29.50 | 29.50 | 23.00 | 23.00 | 26.50 | 26.50 | 20.25 | 20.25 |
| March ... | 30.00 | 29.50 | 23.50 | 23.00 | 27.00 | 26.50 | 20.25 | 20.25 |
| April ... | 30.00 | 30.00 | 23.50 | 23.50 | 27.00 | 27.00 | 20.75 | 20.75 |
| May ... | 30.00 | 30.00 | 23.50 | 23.50 | 27.00 | 27.00 | 20.75 | 20.75 |
| June ... | 30.00 | 29.50 | 23.50 | 23.00 | 27.00 | 26.50 | 20.75 | 20.25 |
| July . | 29.50 | 29.50 | 23.00 | 23.00 | 26.50 | 26.50 | 20.25 | 20.25 |
| August... | 29.50 | 29.50 | 23.00 | 23.00 | 26.50 | 26.50 | 20.25 | 20.25 |
| September | 29.50 | 29.00 | 23.00 | 22.50 | 26.50 | 26.00 | 20.25 | 19.75 |
| October... | 29.00 | 29.00 | 22.50 | 22.50 | 26.00 | 26.00 | 19.75 | 19.75 |
| November | 29.00 | 29.00 | 22.50 | 22.50 | 26.00 | 26.00 | 19.75 | 19.75 |
| December. | 29.00 | 29.00 | 22.50 | 22.50 | 26.00 | 25.00 | 19.75 | 19.75 |

Prices on 10-gallon drums (100 cases) computed in cents per gallon. For drums add $8.50.

| | Naphtha. | | | | Auto. | | Benzine. | |
|---|---|---|---|---|---|---|---|---|
| | 73 @ 76°. | | Stove. | | 68 @ 72°. | | 59 @ 62°. | |
| | High. | Low. | High. | Low. | High. | Low. | High. | Low. |
| January... | 34.00 | 32.50 | 27.50 | 27.00 | 31.00 | 29.50 | 24.75 | 24.25 |
| February.. | 34.00 | 34.00 | 27.50 | 27.50 | 31.00 | 31.00 | 24.75 | 24.75 |
| March ... | 34.50 | 34.00 | 28.00 | 27.50 | 31.50 | 31.00 | 25.25 | 24.75 |
| April ... | 34.50 | 34.50 | 28.00 | 28.00 | 31.50 | 31.50 | 25.25 | 25.25 |
| May ... | 34.50 | 34.50 | 28.00 | 28.00 | 31.50 | 31.50 | 25.25 | 25.25 |
| June ... | 34.50 | 34.50 | 28.00 | 28.00 | 31.50 | 31.50 | 25.25 | 25.25 |
| July .. | 34.50 | 34.50 | 28.00 | 28.00 | 31.50 | 31.50 | 25.25 | 25.25 |
| August ... | 34.50 | 34.50 | 28.00 | 28.00 | 31.50 | 31.50 | 25.25 | 25.25 |
| September | 34.50 | 34.00 | 28.00 | 27.50 | 31.50 | 31.00 | 25.25 | 24.75 |
| October... | 34.00 | 34.00 | 27.50 | 27.50 | 31.00 | 31.00 | 24.75 | 24.75 |
| November | 34.00 | 34.00 | 27.50 | 27.50 | 31.00 | 31.00 | 24.75 | 24.75 |
| December. | 34.00 | 34.00 | 27.50 | 27.50 | 31.00 | 30.00 | 24.75 | 24.75 |

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Telegrams: "TEXACOIL LONDON." Telephone: LONDON WALL 6257.

The total charters for petroleum and products covering oil in bulk and in packages, reduced to crude equivalent compiled in barrels, for the year 1913, amounted to 21,629,702 barrels, with a monthly average of 1,802,475 barrels, showing decreases of 3,950,656 barrels, and 229,221 barrels, compared with the totals for 1912 respectively. During the early part of the year a scarcity of suitable vessels to load full cargoes of case oil and high freights coupled with an inadequate tonnage or tank vessels, served to hamper trade. During September, increased offerings of vessels to load full cargoes of case oil led to decided weakness and sharp decline in rates of 3½ cents a case while during the later part of the year rates gradually weakened, particularly to Australian ports at a decline of 6½ cents a case, established early in November. There has been an incessant demand for oil tankers to relieve the inadequate facility for meeting the large increases in the demand particularly for fuel oil. It is stated that there are over one hundred oil tankers under construction, particularly in foreign shipyards of the east coast. Many of them are fitted with internal combustion engines. Oil freights are still high and expected to remain so for some years to come. But it is obvious, however, that as new tankers are launched, a relaxation in freights will follow, provided the demand for oil transport does not undergo further expansion at the same ratio as it has in the preceding two years.

The following table gives the total charters of vessels for exporting petroleum from the port of New York, in bulk and in packages, reduced to crude equivalent, compiled in barrels of 50 gallons each, with monthly averages and comparative figures :—

| | 1911. | 1912. | 1913. |
|---|---|---|---|
| January... | 2,387,460 | 2,090,924 | 1,691,133 |
| February | 2,103,315 | 1,491,834 | 1,977,467 |
| March ... | 2,245,563 | 2,137,244 | 2,460,008 |
| April ... | 2,692,761 | 2,515,993 | 1,814,369 |
| May ... | 2,346,568 | 2,368,376 | 1,625,012 |
| June ... | 3,106,604 | 1,861,739 | 1,130,222 |
| July ... | 2,287,319 | 2,348,775 | 1,758,235 |
| August ... | 1,988,613 | 1,921,115 | 1,755,936 |
| September | 2,415,879 | 2,132,701 | 2,890,187 |
| October ... | 2,637,002 | 1,143,476 | 1,564,316 |
| November | 1,788,092 | 2,609,659 | 1,521,672 |
| December | 1,962,223 | 1,976,522 | 1,441,145 |
| Total | 27,960,300 | 25,580,358 | 21,629,702 |
| Mo. av | 2,330,025 | 2,031,696 | 1,802,475 |

For the year 1913, the total clearances of petroleum at the port of New York, as outlined by tabulated figures herewith, compiled in gallons, amounted to 773,927,770 gallons, showing a decrease of 114,659,220 gallons compared with the total for 1912. The shrinkages in clearances covered 42,341,004 gallons of illuminating oil, 32,836,774 gallons of naphtha, 1,044,778 gallons of benzine, 19,365,228 gallons of gasoline, 22,313,910 gallons of lubricating oils. Crude oil shows a gain of 13,242,178 gallons, while fuel and gas oils aggregated 16,500,975 gallons and 21,700,527 gallons, showing shrinkages of 2,099,210 gallons and 10,485,066 gallons compared with the totals for 1912, respectively.

The following tabulated figures give the total clearances of petroleum and products at the port of New York, compiled in gallons, for the year 1913, with comparative figures :—

| | 1913. | 1912. |
|---|---|---|
| Refined | 528,102,487 | 570,443,491 |
| Crude | 51,091,807 | 37,849,629 |
| Naphtha | 67,188,721 | 110,025,495 |
| Benzine | 14,055,837 | 15,100,615 |
| Gasoline | 20,858,822 | 40,224,050 |
| Lub. oils | 92,630,096 | 114,944,010 |
| Total | 773,927,770 | 888,586,990 |

Fuel oil, not included in above figures, aggregated 16,500,975 gallons and gas oil amounted to 21,700,527 gallons.

## ROUMANIAN PRODUCTION DURING 1913.

The final official figures concerning the Roumanian petroleum production during 1913 are now to hand, and show a total of 1,885,225 tons as against 1,804,761 tons produced during 1912, thus showing an increase of 80,464 tons or 4½ per cent. It was expected that the increase in the production during the last year would be equal to that during the preceding year, and that the total production would have exceeded 2,000,000 tons. These hopes could not be realised in view of the extraordinary obstacles which have retarded the development of the crude oil production during the year, but still the results obtained may be considered very satisfactory. The production during the first half of the year amounted to 962,686 tons, while that for the second half to 922,539 tons, notwithstanding that the second was favoured with several enormous spouters.

The monthly average during the year amounted to 157,100 tons as against 150,400 tons in 1912, thus showing an increase of 6,700 tons. The average daily production during the year amounted to 5,165 tons as against 4,945 tons in 1912.

Out of the total production during the year 1,667,759 tons or 89 per cent. were obtained in the Prahova district, 125,722 tons or 6.66 per cent. in the Buzau district, 41,583 tons or 2.21 per cent. in the Dambovitza district, and 40,161 tons or 2.13 per cent. in the Bacau district. The percentage of the Prahova district in the total production slightly diminishes from year to year owing to the development of the industry in other and newer districts. Buzau shows a very great development owing to its Arbanash-Policiori field. Baeau also develops in a very satisfactory manner owing to good results obtained on the fields of Zemesh and Solontz. The only district showing a reduction in the production is Dambovitza.

As regards the various fields Moreni still keeps the first place, and has during the past year registered a very considerable increase. Its production amounted to 981,953 tons, or to 52 per cent. of the total production of the country as against 876,414 tons or 48.6 per cent. of the total production during 1912. The increase in the production on the Moreni fields thus amounts to 105,539 tons, and is superior to the total increase of the whole country during the year. The second place among the fields is taken by Bustenari and surroundings, that is to say, Bordeni, Gropi, Chieirua and Runcu. The Bustenari production during the year amounted to 303,614 tons as against 301,520 tons in 1912, showing a small increase of nearly 2,000 tons. The participation of this field in the total production was of 16 per cent., as against 16.9 per cent in 1912. The third place is taken by Campina with 243,715 tons as against 294,405 tons in 1912, showing a decrease of 50,690 tons. The cause of this diminution is the restricted production of the Steaua-Romana in the district.

Then follows Arbanash with 120,862 tons Tintea with 96,794 tons, Goura-Ocnitza with 39,661 tons as against 72,336 tons produced during the preceding year, thus showing a very considerable decrease of 32,670 tons, Bacoi with 28,232 tons and Filipeshti with 20,586 tons and the remaining fields did not produce over 10,000 tons a year each.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co, 61, St. Mary Axe, E.C.

February 20th, 1914.

The prices of Refined Petroleum are as follows :—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d. ; Galician, 7½d.

### LUBRICATING OILS.

The market prices are for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL..

The current quotation is 70s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL.

80s. per ton, in bulk, represents the official quotation.

### MOTOR SPIRIT.

1s. 9d. per gallon is quoted for the best quality retail in London, and 1s. 7d. per gallon for the second quality.

### TURPENTINE.

American spot, 32s. 4½d.; March/April, 32s. 7½d.; May/August, 33s. 4½d. ; September/December, 34s. 4½d.

## LIVERPOOL.

February 18th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, January 18th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil " Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... .. ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, February 18th.

Refined, in cases, is quoted at 11·25 ; Standard White 8·75 ; Credit balances, 2·50.

Philadelphia, February 18th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, February 17th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, February 17th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 40¼–40½ copecs per pood spot. Kerosene, 49–49½ copecs. Residuals, 38–38¼ copecs.

## ROUMANIA.

February 17th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·20–8·30 |
| ,, ,, ,, | Moreni ... | 7·00–7·80 |
| ,, ,, ,, | Tzintea ... | 6·00–6·75 |
| ,, ,, ,, | Policiori... | 5·30 |
| ,, ,, ,, | Bordeni .. | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

February 17th.

Crude oil is quoted 8·20 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date February 19th as follows :—

The pooling arrangement for regulating the production of tin, terne, and blackplates was formally adopted at a meeting of makers held at Swansea on Monday last, and it is to be put in operation as early as possible. Consequent upon this prices are again distinctly firmer and works are to-day quoting as under, according to position and time specified for delivery :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/9 to 13/10½ per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, ... | 19/4½ ,, 19/9 ,, ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED FEBRUARY 16TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| | London— | | | |
| 15/1 | Anglo-Mexican Petroleum Products Co. | Fuel | 64,850 | P. Mexico |
| 15/1 | „ „ | Lamp | 3,450 | „ |
| Feb. | | | | |
| 10 | Port Authority | Lub. | 640 | Hamburg |
| 10 | Scott's Wharf | „ | 3,500 | New York |
| 10 | Anglo-American Oil Co. | „ | 32,000 | „ |
| 10 | Vacuum Oil Co. | „ | 7,640 | „ |
| 10 | Benjamin & Co. | Lamp | 3,930 | Philadel. |
| 10 | J. W. Cook & Co. | Lub. | 41,080 | „ |
| 10 | „ | M. Colza | 5,200 | „ |
| 11 | Port Authority | Lub. Gr. | 2,730 | „ |
| 11 | Mercantile Lighterage Co. | Lub. | 14,840 | New York |
| 11 | Port Authority | „ | 2,370 | Hamburg |
| 11 | Hanseatic Maritime Agency | „ | 60 | Bremen |
| 11 | Motor Petrol Association | Benzine | 2,580 | Brussels |
| 12 | Port Authority | Lub. | 480 | Marseilles |
| 12 | Snowdon, Sons & Co. | Lub. Gr. | 1,130 | Antwerp |
| 12 | F. Chiesman & Co. | Lub. | 1,080 | New York |
| 12 | Langley, Smith & Co. | „ | 2,740 | „ |
| 13 | Homelight Oil Co. | Lamp | 1,502,000 | Batoum |
| 13 | Anglo-American Oil Co. | Fuel | 644,640 | New York |
| 13 | Vacuum Oil Co. | Lub. | 300 | „ |
| 13 | J. Spurling | „ | 80 | Antwerp |
| 13 | E. G. Boize | „ | 220 | Hamburg |
| 13 | „ | „ | 90 | „ |
| 14 | Produce Brokers Co. | „ | 8,000 | Philadel. |
| 16 | „ | „ | 2,600 | „ |
| 16 | Lubricating & Fuel Oils Co. | „ | 30,750 | „ |
| 16 | „ „ | „ | 820 | Hamburg |
| 16 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 3,100 | „ |
| 16 | Leach & Co. | Lub. | 280 | Ghent |
| 16 | Motor Petrol Association | Benzine | 2,080 | Brussels |
| 16 | L. Freeland | Lub. Gr. | 40 | Antwerp |
| 16 | Parkins & Homes | Lub. | 150 | „ |
| 16 | Anglo-American Oil Co. | Lamp | 1,744,960 | New York |
| | Liverpool— | | | |
| 10 | Pickford's | Lub. Oil and Paste | 750 | Hamburg |
| 11 | Liverpool Storage Co. | Lub. | 20,000 | Dunkirk |
| 12 | F. Leyland & Co. | „ | 250 | N. Orleans |
| 12 | W. H. Stott & Co. | „ | 160 | Christiania |
| 12 | Burnaby & Chantrell | „ | 1,440 | New York |
| 13 | F. Schofield & Co. | „ | 2,600 | Baltimore |
| 13 | Meade-King, Robinson & Co. | M. Colza | 7,800 | „ |
| 13 | „ „ | Lub. | 3,800 | „ |
| 13 | A. Hopps & Sons | „ | 27,240 | „ |
| 13 | „ | Lub. Resid. | 2,600 | „ |
| 13 | „ | M. Colza | 5,440 | „ |
| 13 | Bowring Petroleum Co. | Lamp | 2,840 | „ |
| 14 | „ | Lub. | 3,430 | Philadel. |
| 13 | Worthington & Boler | „ | 200 | „ |
| 13 | „ „ | Lamp | 800 | „ |
| 14 | Meade-King, Robinson & Co. | Lub. | 34,600 | „ |
| 14 | E. Harrison & Co. | „ | 17,200 | „ |
| 14 | Crew, Levick & Co. | „ | 69,590 | „ |
| 14 | „ | M. Colza | 11,270 | „ |
| 16 | W. B. Dick & Co. | Lub. | 8,320 | „ |
| 16 | American Line | „ | 1,000 | „ |
| 16 | Bramwell, Fern & Co. | „ | 6,700 | „ |
| 16 | Fellows, Morton & Clayton | „ | 3,700 | „ |
| 16 | Vacuum Oil Co. | Lub. Resid. | 785,000 | Kustendje |
| 16 | Pickford's | Lub. Oil and Paste | 370 | Hamburg |
| 16 | Worthington & Boler | Lub. | 800 | New York |
| 16 | Gracie, Beazley & Co. | „ | 3,500 | „ |
| | Bristol— | | | |
| 12 | Colthurst & Harding | „ | 200 | Hamburg |
| 12 | First Anglo-Russian Oil Co. | Lub. Gr. | 40 | „ |
| 12 | Stephens Bros. & Martin | Lub. | 500 | Antwerp |
| 12 | B. Perry & Sons | „ | 580 | „ |
| 12 | Colthurst & Harding | „ | 2,000 | New York |
| 13 | C. Hill & Sons | „ | 16,200 | „ |
| 14 | Ford & Canning | „ | 10,320 | „ |
| 16 | J. R. Bush | „ | 9,960 | „ |
| 16 | Pickford's | „ | 220 | Antwerp |
| | Cardiff— | | | |
| 10 | Collins & Partners | „ | 240 | „ |
| 14 | Bristol Steam Navig. Co. | Lub. Oil and Gr. | 520 | Hamburg |
| | Goole— | | | |
| 12 | Goole Steamship Co. | Lub. | 240 | „ |
| Feb. | Gloucester— | | | |
| 13 | Bristol Steam Navig. Co. | Lub. | 320 | Hamburg |
| | Grimsby— | | | |
| 10 | J. Sutcliffe & Son | „ | 50 | Antwerp |
| 12 | „ | „ | 1,200 | „ |
| | Harwich— | | | |
| 10 | Great Eastern Railway | „ | 500 | „ |
| 16 | „ „ | „ | 260 | „ |
| | Hull— | | | |
| 12 | T. Wilson, Sons & Co. | „ | 240 | Riga |
| 12 | Hanseatic Maritime Agency | „ | 90 | Bremen |
| 12 | Wilson's & N. E. Railway | „ | 1,400 | Hamburg |
| 12 | „ „ | „ | 120 | Antwerp |
| 12 | „ „ | „ | 4,000 | Dunkirk |
| 14 | T. Wilson, Sons & Co. | „ | 21,920 | New York |
| 16 | Wilson's & N. E. Railway | „ | 560 | Hamburg |
| | Manchester— | | | |
| 10 | D. Currie & Co. | Lub. Gr. | 510 | „ |
| 10 | Meade-King, Robinson & Co. | Lub. | 2,800 | New York |
| 10 | Diamond Lubricating Co. | Lub. Oil and Gr. | 5,560 | „ |
| 10 | W. Hodgson & Co. | Lub. Gr. | 280 | „ |
| 10 | Liverpool Storage Co. | Lub. | 3,640 | „ |
| 11 | W. W. Jones, Dooly & Co. | Lub. Gr. | 6,700 | „ |
| 11 | Anglo-American Oil Co. | Lub. | 28,930 | „ |
| 13 | F. Schofield & Co. | „ | 4,950 | „ |
| 13 | J. T. Fletcher & Co. | „ | 960 | Ghent |
| 13 | F. Schofield & Co. | Lamp | 3,310 | Philadel. |
| 13 | J. T. Fletcher & Co. | Lub. | 200 | Antwerp |
| 14 | D. Currie & Co. | Lub. Oil and Gr. | 3,160 | Hamburg |
| 14 | Worthington & Boler | Lub. | 2,100 | New York |
| 16 | Liverpool Storage Co. | „ | 2,080 | „ |
| 16 | F. Leyland & Co. | „ | 6,970 | „ |
| 16 | McLiners, Ltd. | „ | 4,000 | Philadel. |
| | Middlesbrough— | | | |
| 10 | E. Harris & Co. | Lub. Oil and Gr. | 2,500 | Antwerp |
| | Newcastle— | | | |
| 10 | P. H. Matthiessen & Co. | Lub. | 570 | Bergen |
| 11 | Tyne-Tees Steamship Co. | „ | 3,300 | Hamburg |
| | Newport— | | | |
| 14 | M. Jones & Co. | „ | 960 | Antwerp |
| | Plymouth— | | | |
| 16 | Anglo-American Oil Co. | Lamp | 695,730 | New York |
| | Portsmouth— | | | |
| 13 | Bristol Steam Navig. Co. | Lub. | 360 | Hamburg |
| | Glasgow— | | | |
| 10 | Clyde Shipping Co. | Lub. Gr. | 2,480 | Antwerp |
| 10 | Anchor Line | Lub. | 61,920 | New York |
| 12 | Donaldson Bros. | „ | 23,240 | Baltimore |
| 13 | „ | M. Colza | 2,600 | „ |
| 13 | „ | Lub. Gr. | 1,000 | „ |
| 16 | Maclay & MacIntyre Co. | Lub. | 3,710 | N. Orleans |
| | Grangemouth— | | | |
| 10 | Jas. Currie & Co. | „ | 120 | Hamburg |
| 12 | „ | „ | 1,600 | „ |
| 12 | J. Rankine & Son | „ | 920 | Antwerp |
| 14 | „ | „ | 270 | Rotterdam |
| | Leith— | | | |
| 10 | W. G. Yooll & Co. | Lamp | 3,050 | Hamburg |
| 10 | G. Gibson & Co. | Lub. | 2,800 | Antwerp |
| 12 | „ | „ | 3,360 | „ |
| 12 | Jas. Currie & Co. | „ | 120 | Hamburg |
| 12 | W. G. Yooll & Co. | Lamp | 4,360 | „ |
| 12 | G. V. Turnbull & Co. | Lub. | 2,050 | Philadel. |
| 16 | Jas. Currie & Co. | „ | 600 | Bremen |
| 16 | „ | „ | 2,000 | Hamburg |
| 16 | W. G. Yooll & Co. | Lamp | 4,360 | „ |
| | Belfast— | | | |
| 10 | J. C. Pinkerton | Lub. Oil and Gr. | 450 | „ |
| | Dublin— | | | |
| 10 | P. Murphy & Co. | Lub. | 140 | „ |
| | | | 6,213,210 | |

From Lloyd's

February 19th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | San Francisco | Iquique | L. Feb. 3 |
| AMERICAN | New York | Antwerp | Pd. Lizard Feb. 18 |
| APPALACHEE* | London | Philadelphia. | Pd. Dover Feb. 5 and in wire'ess com. Feb. 7 |
| APSCHERON | Batoum | St. Louis, Rh. | Pd. Dard. Feb. 11 |
| ARAL | New York | La Pallace | L. Feb. 8 |
| ARAS | Blyth | New York | L. Feb. 5 |
| ARCA | Alexandria | Colombo | L. Perim Feb. 16 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Arr. Feb. 10 |
| ASHTABULA* | San Francisco | Pisagua | L. Jan. 27 |
| ASTRAKHAN | Kustendje | Hamburg | Arr. Feb. 13. In port Feb. 16 |
| AUREOLE | London | Port Arthur. | Arr. London Feb. 19 |
| AZOV | San Francisco | Callao | Arr. about Feb. 17 |
| BAKU STANDARD | Dartmouth | Kustendje | Arr. Feb. 14 |
| BALAKANI □ | Manchester | New Orleans | Arr. Fayal Feb. 16 |
| BARNESON | Tyne | San Pedro (Cal.) | 72 miles S.E. of Lands End Feb. 13 |
| BATOUM | London & Amsterdam | Jacksonville. | Arr. Bermuda Feb. 17 |
| BAYONNE | Kustendje | Granatello | L. Savona Feb. 11 |
| BEACON LIGHT | Tyne | Abadan | L. Feb. 11 |
| BLECHWOOD | Liverpool | Cienfuegos | L. Feb. 14 |
| BLOOMFIELD | Philadelphia. | Tuxpan | D. Diamond Shoal Feb. 7 |
| BORJOM | Batoum | Alexandria | Arr. Feb. 11 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | L. Dec. 31 |
| BRILLIANT | Swinemunde | Hamburg | Arr. Feb. 11. In port Feb. 16 |
| BRITISH SUN | Philadelphia. | Ango Ango | Arr. St. Vincent, C.V., Feb. 12 |
| BROADMAYNE | New York | Calais | L. Halifax Feb. 5 |
| BUFFALO | San Francisco | Taku Bar | L. Feb. 10 |
| BULLMOUTH △ | Kurrachee | Galle | L. Feb. 16 |
| BULYSSES | Rangoon | Port Said | L. Colombo Feb. 14 |
| BURGERMEISTER PETERSEN | New York | Dantzig | Pd. Dunnet Hd. Feb. 14 |
| BUYO MARU | Calcutta | Rangoon | L. Jan. 11 |
| C. A. CANFIELD* | Sabine | Tampico | Arr. Jan. 23 |
| CALCUTTA (Br. Bq.) | Yokohama | San Francisco | L. Jan. 15 |
| CAMILLO | Port Arthur & Norfolk | Sheerness | Pd. Cape Henry Feb. 3 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | Batoum | Colombo | Arr. a'bt Feb. 18 |
| CARPATHIAN □ | Tyne | Philadelphia. | Pd. Dover Feb. 6 |
| CASTOR | Aroe Bay | Singapore | Arr. Feb. 7 |
| CAUCASIAN □ | Hull | New Orleans. | Pd. Dover Feb. 3 |
| CHARLES E. HARWOOD | New Orleans. | Tampico | L. Port Eads Jan. 15 |
| CHARLOIS | Sabine | Rotterdam | L. Feb. 7 |
| CHATHAM | Tampico | Baltimore | Arr. Feb. 7 |
| CHESTER | New York | Antwerp | L. Feb. 8 |
| CHEYENNE | Norfolk, Va. | Sabine | L. Feb. 8 |
| CIRCASSIAN PRINCE | — | — | T. W.C.S. America |
| CITY OF EVERETT | New York | Tampico | Pd. Sand Key Feb. 1 |
| CLAM △ | Zanzibar | Colombo | L. Feb. 13 |
| CLEARFIELD | — | Tuxpan | Arr. Jan. 20 |
| COMANCHEE | Philadelphia. | Belfast & Liverpool | Pd. Delaware B'water Feb. 3 |
| CONCH △ | Singapore | Gibraltar | Pd. Perim Feb. 15 |
| CONRAD MOHR | Tyne | Philadelphia. | Arr. ab't Feb. 12 |
| CORDELIA | Antofagasta | — | In port Antofagasta Feb. 13 |
| COWRIE △ | San Francisco | Shanghai | Put back San Francisco after being ashore |
| CURRIER | P. Padre | Boston | 293 miles S. of Nantucket Feb. 9 |
| CYMBELINE | Port Arthur. | Christiania | L. Norfolk, Va., Feb. 17 |
| CYRENA | Newcastle, N.S.W. | Brisbane | Arr. Feb. 6 |
| CZAR NICOLAI II. | London | Batoum | Pd. Dard. Feb. 17 |
| DAGHESTAN | Rouen | Philadelphia. | L. Halifax Feb. 14 |
| DANUBIAN □ | Port Arthur. | London | Arr. Feb. 18 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Pd. St. Helena Jan. 20 |
| DELAWARE* | Tyne | Port Arthur | Pd. Dunnet Hd. Feb. 17 |
| DELPHIN | New Orleans | Swinemunde | L. Norfolk Feb. 15 |
| DERBENT | Hamburg | Batoum | Pd. Dungeness Feb. 14 |
| DESALBA | San Pedro | Antofagasta | L. Feb. 4 |
| DEUTSCHLAND | Rotterdam | Philadelphia. | Arr. Feb. 11 |
| DIAMANT | New York | Rotterdam | Pd. Prawle Pt. Feb. 18 |
| DONAX | Barrow | Abadan | Pd. Perim Feb. 1 |
| EBURNA | Abadan | — | Pd. Perim Feb. 18 |
| EDWARD L. DOHENEY | Tampico | Sabine | Arr. Feb. 9 |
| EL LOBO | Lobitos | San Francisco | Arr. ab't Feb. 18 |
| EL SEGUNDO | Vancouver | San Francisco | L. Astoria Jan. 20 |
| EL TORO | New Orleans | Campana | L. Port Eads Feb. 6 |
| ELAX △ | New Orleans | Trieste | Arr. Feb. 16 |
| ELISE MARIE | Philadelphia. | Gothenburg | Pd. Delaware B'water Feb. 2 |
| ELSINORE | Emden | Seattle | L. Punta Arenas (Mag.) Jan 21 |
| EMANUEL NOBEL | Batoum & Kustendje | Antwerp | Pd. Dard. Feb. 6 |
| ENERGIE | New York | Tuxpan | Pd. Sand Key Feb. 7 |
| ERIVAN | Dunkirk | Batoum | Pd. Dard. Feb. 15 |
| ESCALONA | Port Arthur. | Rio Janeiro | L. Jan. 24 |
| ESTURIA | Karatzu | Balek Pappan | L. Feb. 12 |
| EUPION | Sunderland | New York | 130 miles S.E. of Brow Hd. Feb. 9 |
| EUPLECTELA △ | Singapore | Sydney | L. Feb. 9 |
| EXCELSIOR | Tyne | Philadelphia. | Pd. Dunnet Hd. Feb. 17 |
| F. A. TAMPLIN | P. Mexico | Manchester | Arr. Feb. 5. In port Feb. 17 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans | New York | Arr. Jan. 28. In port Feb. 6 |
| GENESSE* | Liverpool | New York | Pd. Fastnet Feb. 2 |
| GEORGIAN PRINCE | Antwerp | Tyne | Arr. Feb. 14. In port Feb. 16 |
| GOLDMOUTH △ | Batoum | Port Said | Arr. Feb. 19 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Las Palmas Feb. 16 |
| HAGEN | Hamburg | New York | Arr. Feb. 12 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | San Francisco | Pisagua | Arr. Feb. 11 |
| HARRY LUCKENBACH | Baltimore | Galveston | Pd. Sand Key Feb. 4 |
| HAVRE | Sydney | Singapore | L. Feb. 3 |
| HELIOS | Rotterdam | New York | Pd. Cape Wrath Feb. 4 |
| HERA | Philadelphia | Hamburg | Arr. Feb. 11. In port Feb. 16 |
| HERBERT G. WYLIE | Sabine | Tampico | Crossed Sabine Bar Feb. 4 |
| HERMIONE | Southampton | Port Arthur. | Pd. Lizard Feb. 15 |
| HESPERUS | Callao | San Francisco | Arr. Jan. 31 |
| HORLEY | New Orleans | Tampico | Cl. Feb. 9 |
| HOTHAM NEWTON | Hull | Batoum | Cl. C'nople Feb. 7 |
| HYRCANIA | Avonmouth | Kustendje | Cl. Constantinople Feb. 10 |
| ILLINOIS | Antwerp | Port Arthur | L. Jan. 31 |
| IMPEROYAL | — | — | T. R. St. Lawrence |
| IMPOCO | Kustendje | — | Pd. Dard. Feb. 15 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | Arr. Feb. 12 |
| J. B. AUG. KESSLER | Thames Haven | Batoum | Pd. Constantinople Feb. 14 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. Feb. 2 |
| JULES HENRY (Fr. Bq.) | Rotterdam | Amsterdam | Arr. Nov. 23. In port Feb. 17 |
| JUNO | Palembang | Miri | L. Feb. 10 |
| KANAKUK | Singapore | San Francisco | Arr. Feb. 8 |
| KARLSBRUKE | Stettin | Rotterdam | Arr. Feb. 17 |
| KASBEK | Hamburg | Kustendje | Pd. Sagres Feb. 11 |
| KIOWA* | Sabine | Bremerhaven | L. Norfolk Feb. 10 |
| KIO MARU | Valparaiso | Hong Kong | Arr. ab't Jan. 24 |
| KOMETA | Spezia | Novorossisk | Cl. Constantinople Jan. 16 |
| KREMLIN | Batoum | Hamburg | Pd. Dard. Feb. 14 |
| KURA | Tuborg | Blyth | Arr. Feb. 13 |
| LA CAMPINE | New York | Antwerp | Pd. Lizard Feb. 18 |
| LA FLANDRE | Antwerp | Sabine | Arr. Norfolk, Va., ab't Feb. 12 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | Antwerp | Philadelphia. | Pd. Dover Feb. 11 |
| LACKAWANNA* | Manchester | New York | 160 miles W. of Brow Hd. Feb. 9 |
| LAMPO | New York | Genoa | Arr. Feb. 13 |
| LE COQ □ | New York | Rouen | Arr. Feb. 16 |
| LEDA | Baton Rouge | Hamburg | L. Feb. 10 |
| LOKI | Hamburg | New York | Arr. Feb. 16 |
| LUCELLUM | Southampton | New York | Arr. Feb. 16 |
| LUCERNA | Thames Haven | Kustendje | Arr. Feb. 17 |
| LUCIGEN | Cardiff | Abadan | Pd. Barry Island Feb. 14 |
| LUCILINE □ | Philadelphia. | Cette | L. Feb. 8 |
| LUMEN | Kustendje | Rotterdam | Arr. Feb. 15. In port Feb. 17 |
| LUTETIAN □ | Novorossisk | Bordeaux | Pd. Gib. Feb. 17 |
| LUX □ | New York | Tarragona | Arr. Bilbao Feb. 9 |
| LUZ BLANCA | Talara | San Francisco | Arr. ab't Feb. 16 |
| MAKKAVEI | Constantinople | Novorossisk | Cl. Jan. 31 |
| MANNHEIM | Aarhus | Philadelphia. | L. Tyne Feb. 2 |
| MARGARETHA | Kustendje | Antwerp | Pd. Dard. Feb. 13 |
| MASCONOMO | San Francisco | Tsingtau | Arr. ab't Feb. 9 |
| MASSASOIT | San Francisco | Mi-ike | L. Jan. 29 |
| MEPPEN | Novorossisk | Brunshausen. | Pd. Dard. Feb. 13 |
| METEOR | Vladivostock. | Batoum | Cl. Constantinople. Feb. 12 |
| MEXICAN PRINCE | Shanghai | Singapore | L. Feb. 8 |
| MIJDRECHT | Hamburg | Kustendje | Pd. Gib. Feb. 19 |
| MINA BREA | San Francisco | Payta | Arr. Jan. 27 |
| MIRA | Philadelphia. | Venice | L. Algiers Feb. 8 |
| MITRA | Abadan | Suez | Pd. Perim Feb. 13 |
| MOHAWK* | New York | Tampico | L. Feb. 6 |
| MOHICAN | Port Arthur | Rotterdam | Pd. Lizard Feb. 18 |
| MUREX △ | Hong Kong | Balek Pappan | L. Feb. 10 |
| NARRAGANSETT | New York | London | Arr. Feb. 17. In port Feb. 18 |
| NATICA | Tsingtau | Shanghai | Arr. Feb. 11 |
| NELSON | Port Arthur. | Philadelphia. | 43 miles W. of Tortugas Feb. 5 |
| NEW YORK* | Rotterdam | New York | Pd. Lizard Feb. 16 |
| NIAGARA | San Francisco | Hong Kong | L. Jan. 26 |
| NORMAN BRIDGE | Galveston | Tampico | L. Feb. 7 |
| OAKWOOD | Avonmouth | Cienfuegos | Arr. Eeb. 17 |
| OBERON | — | Port San Luis | Arr. Feb. 12 |
| OCEAN | Amsterdam | Philadelphia. | Pd. Lizard Feb. 17 |
| OILFIELD | Batoum | London | Arr. Feb. 16. In port Feb. 18 |
| OKLAHOMA | New York | Port Arthur | Abandoned S. of Sandy Hook and sunk |
| ORIFLAMME □ | Novorossisk | Havre Roads | L. Feb. 15 |
| OSAGE | New York | Tampico | Pd. Sand Key Feb. 2 |
| OTTAWA* | Liverpool | New Orleans. | L. Holyhead Feb. 17 |
| OURAL | Alexandria | Kustendje | Pd. Constantinople Feb. 15 |
| PALEMBANG | Rangoon | Madras | Arr. Feb. 12 |
| PATELLA △ | Thames Haven | Tyne | Arr. Feb. 11. In port Feb. 16 |
| PAUL PAIX | Tees | Kustendje | Pd. Gib. Feb. 13 |
| PAULA | Hamburg | Philadelphia. | Pd. Lizard Feb. 5 |
| PAWNEE | New York | Lisbon | Arr. Jan. 29 |
| PECTAN | Taltal | San Francisco | Arr. Feb. 8 |
| PENNOIL | Rotterdam | Philadelphia. | Put back Feb. 4. In port Feb. 17 |
| PETROLEINE | New York | Bordeaux | L. Feb. 6 |
| PETROLEUM | Port Arthur | Portsmouth | Arr. Feb. 2 |
| PHOEBUS | Iquique | San Francisco | L. Jan. 29 |
| PINNA □ | Hamburg | Tyne | Arr. Feb. 3. In port Feb. 18 |
| PONUS | Chinkiang | Shanghai | Arr. Jan. 23 |
| POTOMAC* | London | St. John (N.B.) | 60 miles S. of Caister Feb. 17 |
| POWHATTAN | San Francisco | Bombay | Arr. Yokohama ab't Feb. 5 |
| PROMETHEUS | Antofagasta | San Francisco | L. Feb. 8 |
| PRUDENTIA | Trinidad | New York | Arr. Feb. 12 |
| PURELIGHT | Philadelphia. | — | Pd. Dover Feb. 16 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | Anchored Corvette (Rouen) about Jan. 21 |
| RADIOLEINE | Port Arthur. | Newport News | L. Feb. 9 |
| RANELLA | Singapore | Gibraltar | L. Suez Feb. 16 |
| RENDOVA (Br. Bq.) | Seville | New York | L. Feb. 5 |
| RICHMOND | San Francisco | Port San Luis | Arr. Jan. 15 |
| RION | Hamburg | Blyth | Arr. Jan. 18. In port Feb. 17 |
| ROCK LIGHT □ | Port Arthur. | Amsterdam | L. Feb. 17 |
| ROMANY △ | Singapore | Hong Kong | Arr. Feb. 8. Dry-docked |
| ROSALIND | Portland, Dor. | Port Arthur | Arr. Feb. 16 |
| ROTTERDAM | Amsterdam | New York | 50 miles S. of Queenstown Feb. 18, Disabled |
| ROUMANIAN □ | Hull | Sabine | Off Isle of Wight Jan. 29 |
| ROUMANIAN PRINCE | Italy | — | Pd. Gib. Feb. 8 |
| RUSSIAN PRINCE | Tampico | Aransas | Arr. Feb. 14 |
| SABINE RICKMERS | Haiphong | Hong Kong | Arr. Feb. 15 |
| SALAHADJI △ | Sourabaya | Kalianget | L. Feb. 16 |
| SAMOSET | San Francisco | Shanghai | Arr. ab't Jan. 30 |
| SAN ANTONIO | Queenboro' | Rotterdam | Arr. Feb. 8 |
| SAN BERNARDO | Puerto Mexico | Sheerness | L. Jan. 31 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Puerto Mexico | Boston | L. Norfolk Feb. 6 |
| SAN EDUARDO | London | Port Reading | Arr. Feb. 15 |
| SAN FRATERNO | Queenboro' | Balek Pappan | Pd. Perim Feb. 13 |
| SAN GREGORIO | New York | Rotterdam | L. Feb. 10 |
| SAN HILARIO | Tyne | Borneo | Arr. Feb. 12 |
| SAN JERONIMO | Sunderland | Borneo | Pd. Southend Feb. 14 |
| SAN JOAQUIN | Tyne | San Francisco | Arr. Punta Aren's ab't Jan. 30 |
| SAN LORENZO | Tyne | Tuxpan | 27 miles S.W. of Niton Feb. 15 |
| SAN RICARDO | Portland | Tarakan | Pd. Portland Bill Feb. 15 |
| SAN SILVESTRE | Philadelphia. | London | L. Feb. 12 |
| SAN TIRSO | Baltimore | New Orleans | L. Feb. 14 |
| SAN URBANO | Thames Haven | Gravesend | Arr. Jan. 20. In port Feb. 6 |
| SAN VALERIO | Philadelphia | Tuxpan | Arr. Feb. 16 |
| SANTA MARIA | Hilo | San Francisco | Arr. Dec. 12 |
| SANTA RITA | — | Vancouver | Arr. ab't Feb. 5 |
| SATANTA | San Francisco | Yokohama | L. Jan. 24 |
| SAXOLEINE | Tyne | New York | Pd. Dunnet Hd. Feb 8 |
| SEQUOYA | San Francisco | Amoy | Arr. ab't Jan 23 |
| SERVIAN □ | Port Arthur. | Avonmouth | L. Feb. 9 |
| SHABONEE | Calcutta | San Francisco | Arr. ab't Feb. 14 |
| SILVIA | Tyne | Port Arthur. | Arr. Feb. 17 |
| SIOUX | Buenos Aires | San Francisco | Arr. Feb. 7 |
| SIRIUS (Ger.) | London | Kustendje | Pd. Sagres Feb. 10 |
| SOCONY | Port Arthur | New York | L. Jan. 19 |
| SOYO MARU | Suez | — | Pd. Aden Feb. 7 |
| SPLENDOR | Philadelphia. | Algiers | Pd. Delaware B'kwater Feb. 5 |
| STAG | Rotterdam | Cuba | Pd. Dungeness Feb. 19 |
| STANDARD | Kustendje | Liverpool | Arr. Feb. 17 |
| STROMBUS △ | Portsmouth | Cardiff | Arr. Jan. 27. In port Feb. 17. Repairing |
| SULTAN VAN LANGKAT △ | Suez | Aden | L. Aden Feb. 14 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4. In port Jan. 20 |
| SURAM | Copenhagen | Blyth | Arr. Jan. 16. In port Feb. 10 |
| SUWANEE* | Plymouth | Sunderland | Off the Wight Feb. 18 |
| SVIET | Batoum | Odessa | L. Jan. 27 |
| TASCALUSAH | New York | India | Pd. Perim Feb. 17 |
| TATARRAX | New York | Port Said | Put back Algiers Feb. 9 |
| TEAKWOOD | Port Arthur | Portland | L. Norfolk, Va., Feb. 17 |
| TECUMSOH | Philadelphia. | Tampico | Pd. Sand Key Feb. 2 |
| TELENE △ | New Orleans | Alexandria | L. Newport News Feb. 17 |
| TEREK | Sunderland | Tyne | Arr. Feb. 9. In port Feb. 10 |
| TEXAS | New York | Port Arthur | L. Jan. 20 |
| TIFLIS | Batoum | Antwerp | Arr. Flushing Feb. 18 |
| TONAWANDA* | New York | London | L. Feb. 8 |
| TRINCULO | Antofagasta | Salina Cruz | L. Jan. 31 |
| TRINIDADIAN | Tampico | Port Arthur | Arr. Feb 3 |
| TRITON | Hamburg | Key West | Pd. Prawle Pt. Feb. 3 |
| TROCAS △ | Singapore | Kobe | L. Yokohama Feb. 12 |
| TURBO | Tyne | Algiers | Pd. Dover Feb. 12 |
| UNCAS | San Francisco | Hong Kong | Arr. Jan. 28 |
| VEDRA | Bremerhaven | Port Arthur | Pd. Prawle Pt. Feb. 3 |
| VILLE DE DIEPPE (Norwegian Barque) | Philadelphia. | La Pallice | L. Feb. 17 |
| VITRUVIA | Barrow | Novorossisk | Pd. Cap de Fer ab't Feb. 16 |
| VOLCANUS | Sourabaya | Palembang | L. Feb. 12 |
| VOLUTE △ | Rangoon | Port Said | L. Feb. 11 |
| WABASHA | San Francisco | Calcutta | Arr. ab't Feb. 2 |
| WANETA | Galveston | Tampico | L. Feb. 3 |
| WAPELLO | Manchester | New York | 100 m. S.W. Brow Head Feb. 13 |
| WASHINGTON | Norfolk | Tampico | L. Feb. 14 |
| WEEHAWKEN | Cienfuegos | London | L. Feb. 6 |
| WIELDRECHT | Kustendje | Oxelosund | Arr. Feb. 11 |
| WILLIAM F. HERRIN | San Francisco | Monterey | L. Dec. 10 |
| WILLKOMMEN | New York | Stockholm | L. Feb. 11 |
| WINAMAC | Bombay | — | Arr. Singapore ab't Jan. 29 |
| WOTAN | Hamburg | New York | 120 m. S. Brow Head Feb. 17 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### Standard Oil Stocks.

UNDER this title a most informative brochure has just been published by the General Service Corporation of New York, the booklet being the eighth edition Its contents exclusively refer to the Standard Oil Company and its former subsidiary concerns, the seventy odd pages containing a wealth of information upon the history of the numerous enterprises associated with the Standard. From a perusal of the interesting pamphlet we gather that dividends aggregating over $100,000,000 in cash, $81,000,000 in stock, and $2,500,000 in rights were divided during the past year among the shareholders in the group of former Standard Oil Companies, which is equivalent to a cash return of over 107 per cent. and a surplus increment of nearly 82 per cent. on the capitalisation of the old Standard Oil Company. The above facts eloquently speak of the enormous earning power of the companies, and show to what a remarkable extent well-directed finance in oil is capable of yielding remunerative returns.

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### The coming of the Motor Vessel.

THERE is no denying the fact that we are upon the eve of a revolution in regard to marine propulsion, for just as steam displaced the old sailing ships nearly a century ago, so now has the internal combustion engine been satisfactorily adopted for marine purposes, and gives every promise of putting steam engined vessels in the background in the not distant future. The Diesel engined vessel has already passed its experimental stage, and is now being largely adapted for general transport work, while even in the carriage of bulk oil across the oceans of the world, the new type of vessel has made its successful *debut*. We are reminded of the trend of events in this direction by the few words which dropped from the lips of Mr. Richard Airey, the general manager of the British Petroleum Company, during the present week at the launching ceremony of the s.s. "Teutonian" on the Wear. Bearing these in mind, and recollecting too, the attitude of Sir Marcus Samuel, Bart., in regard to Diesel-engined craft, it is safe to assume whatever material extensions may be made in the future to the world's oil carrying fleet, these will for the most part be upon the economical lines resulting from the whole-hearted adoption of the internal combustion engine for marine transport purposes. If additional evidence were required as to the outlook for the increased utilisation of Diesel engines for the bulk oil carrying trade, we have it in the appearance of the new motor boat "Sebastian" which at the time of writing is in the Thames, fresh from her North Sea trials.

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### The Spies Company's New Issue.

THE REVIEW officially learns that, in accordance with the circular issued to the shareholders of the Spies Petroleum Company, Ltd., toward the end of last year, a new issue of shares—150,000—will be made to the public during the coming week. The nominal value of the shares, as our readers will be aware, is ten shillings, and they will be offered to the existing shareholders at the price of twenty-one shillings per share, the odd shilling being deemed payment on account of any dividend which may be declared by the company as a final dividend in respect of the past year's operations. The new shares, which will in all respects rank *pari passu* with the already issued shares of the company, are being offered to the shareholders in the ratio of one new share for every complete eleven shares already held by them, and payment for the new scrip must be made in full upon application.

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### Another Prosperous Year for the Thames Haven Oil Wharves.

THE chairman of the London and Thames Haven Oil Wharves, Ltd.,—Sir Owen Philipps—had another very satisfactory year to report when he appeared before the Company's shareholders during the present week, for apart from announcing the declaration of the usual dividend of eight per cent., a sum of £10,000 has been added to the reserve fund during the past twelve months, while the balance carried forward is larger than was the case a year ago. The expansion which the world's petroleum trade has witnessed during the past few years is well reflected in the business of the London and Thames Haven Oil Wharves, Ltd., which property to-day ranks by far as the largest public oil storage installation extant. The great aim of the board has been that the company should move abreast with the times, and this ambition has been achieved in a striking degree, as is shown by the enormous growth of storage capacity at the Thames Haven wharves. During the past year this expansion has continued, and in the course of a few weeks the company will possess no less than three deep-water piers at which the largest tankers can comfortably discharge their liquid fuel content at any state of the tide. The fact that nearly one-quarter of the total petroleum import trade of the United Kingdom passes through the Thames Haven storage tanks to-day speaks volumes, not only for the important *rôle* which the installation plays in connection with our petroleum trade, but for the care and foresight which has guided the management of the company from its comparatively modest beginnings.

## THE INSTITUTION OF PETROLEUM TECHNOLOGISTS.

The inaugural meeting of the Institution of Petroleum Technologists will take place next Tuesday evening at the House of Royal Society of Arts, W.C., when Sir Boverton Redwood will take the chair at eight o'clock. Several interesting addresses will be given.

## THE GERMAN KEROSENE MONOPOLY.

The Reichstag committee, instituted for the purpose of a law concerning the kerosene monopoly, who have modified this latter in a very important way, had a meeting on February 6th. The State Secretary of Finance has accepted some of the modifications of the committee, but has rejected others. The German Government insists in its idea that the company, who will have the monopoly of the sales must have full freedom enjoyed by any private commercial enterprise, and persists also in demanding that the concession of the monopoly of the company should be for thirty instead of twenty years as proposed by the committee. The government also wants the State to participate in the enterprise with capital, but in this case the State forces upon the company an organisation similar to that of the Imperial Bank, such organisation granting the State a very considerable control and influence over the activity of the company. The State also persists in participating in the profits of the company, but consents in order to satisfy the Reichstag committee that its profits should only begin after the prices attain a certain decrease in comparison with the actual prices. The government is against fixing a limit for the price of kerosene as is desired by the committee.

Some meetings are shortly going to take place, in order to decide upon all these questions. The government does not intend to extend the monopoly of the sales of benzine, but in order to satisfy the needs of the administration of the army, the government is desirous of organising a separate company for the sales of benzine.

## SITUATIONS WANTED.

YOUNG ENGLISHMAN, recently returned from American oilfields with considerable experience in percussion and core drilling and the management of prospecting work, requires situation home or abroad. Apply Box "P. C.," care of Petroleum Review, 45, St. Mary Axe, E.C.

OIL ENGINEER (English), college trained, wishes executive position with oil company. Extensive European and Eastern oil experience, capable field administrator, business manager and economist in running production side. Most modern methods of utilising wastes. Valuable man as assistant to general manager. At liberty May, 1914. Reply Box "M. S. G.," care of Petroleum Review, 45, St. Mary Axe, E.C.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended February 21st was 120,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended February 22nd was 284,360 poods, or about 4,586 tons. The total production for the year from January 14th to February 22nd was 1,676,625 poods, or about 27,042 tons. The total production for the corresponding period last year was 1,527,120 poods, or about 24,631 tons. Price of crude oil at Baku is now 40 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended February 21st was 29,980 poods, or 484 tons.

European Oilfields Corporation, Ltd. — The production for the week ended February 22nd was 102,600 poods, or 1,654 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended February 21st was 128,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended February 21st was 22,878 poods (369 tons).

Maikop New Producers, Ltd.—Production for week ended February 21st was 6,800 poods (110 tons).

British Maikop Oil Company, Ltd.—Production for week ended February 22nd was 12,826 poods, or 207 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended February 21st, 96,725 poods, or 1,560 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended February 24th was 468,438 poods, or 7,555 tons. Corresponding period last year, 1,606 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended February 22nd was 87,067 poods, or 1,404 tons.

Maikop Midland.—Production at Krimskaya for week ended February 21st was 4,200 poods, or 68 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended February 21st was 24,111 poods (388 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended February 15th was 1,600 poods (26 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended February 21st was 3,700 poods, or 60 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone City 8840 (4 lines).
LONDON, E.C.

# INTERESTING LAUNCH ON THE WEAR.

## MRS. R. AIREY CHRISTENS THE S.S. "TEUTONIAN."

During the present week another of those interesting ceremonies has taken place in the North of England which have during the last few months become events of such frequent occurrence, for on Wednesday afternoon, before an influential company of invited guests, Mrs. Richard Airey, the charming wife of the general manager of the British Petroleum Company, Ltd., christened the S.S. "Teutonian" as the latest acquisition to the fleet of the Petroleum Steamship Company gracefully moved off the slips at Sir James Laing and Sons' yards at Sunderland.

Managed by Messrs. Lane and Macandrew, the oil tankers of the Petroleum Steamship Company include the "Caucasian" (6,600 tons capacity), the "Servian" (6,700 tons), the "Balakani" (5,200 tons), "Saxonian" (6,200 tons), "Pinna" (8,200 tons), "Danubian" (6,900 tons), "Roumanian" (6,700 tons), "Rock Light" (4,100 tons), and the "Terek" (5,200 tons), these vessels being regularly in service for the needs of the European Petroleum Union, transporting, as a matter of course, much of the petroleum products distributed by the British Petroleum Company upon the English markets.

The "Teutonian" is a larger vessel than the majority of the other boats of the fleet, and has several improvements embodied in her design which are absent in the older tankers. She is, in fact, the last word in oil-tanker construction, and when completed will reflect the greatest credit upon both her owners and builders. Upon a draught of 23 ft. 10 in., the "Teutonian" will carry approximately 7,000 tons of kerosene, though the vessel is fitted so that she can carry the full deadweight of benzine or other petroleum products. Her length is 389 ft., and her breadth 50 ft. 6 in., the moulded depth being 28 ft. 5 ins. The vessel is divided into 14 compartments, and has six summer tanks, the compartments being divided by two coffer dams so as to enable her to carry three different grades of oil simultaneously. When fully loaded, the speed of the "Teutonian" will be eleven knots. The oil pumping installation is thoroughly up-to-date, and the vessel will be able to discharge her total cargo at the rate of nearly 500 tons per hour. The accommodation for the officers and crew will be very complete for a vessel of this type, the officers' quarters being amidships, and the engineers' accommodation aft.

The engines are aft, steam, at a pressure of 180 lbs., being supplied by three large single-ended boilers designed to burn either oil or coal, the boiler measurements being 15 ft. 6 in. by 11 ft. 6 in. In addition, there will be installed a large donkey boiler for auxiliary work. The engines, which are to be built by Messrs. Dickinson and Sons, Sunderland, are of the triple-expansion type, and have cylinders 26 in., 44 in., and 72 in., by 48 in. stroke. Electric light is to be installed throughout, the "Teutonian" being constructed to conform to Suez Canal requirements, and to Lloyds' highest class.

Among the ladies and gentlemen present at Wednesday's launch our representative noticed Mr. and Mrs. Richard Airey, Mr. and Mrs. A. J. Brian (Mr. Brian being the Northern manager for the British Petroleum Company), Mr. Wm. von Eckartsberg (Deutsche Petroleum Actien Gesellschaft, Berlin), Mr. A. M. Campbell (Manchester division manager for the British Petroleum Company), Mr. C. Venables (Hull division Manager), Mr. John Cates (Head office of the British Petroleum Company), Mr. R. E. Brett (Brett's Oil Company, Newcastle-on-Tyne), and Mr. Hugh Laing (Sir James Laing and Sons, Ltd.)

Photo by] The Launch Party. [Topical Press Agency.

The "Teutonian" majestically left the slips to the accompaniment of hearty cheers raised by the guests and a large crowd of onlookers, Mrs. Airey, as she broke the wine over the bows wishing the vessel "God speed and a successful career."

Mr. and Mrs. Richard Airey.

At Messrs. Laing's yards the River Wear is particularly narrow, and it was a surprise to the majority of the guests that such a large vessel could so gracefully slide from the stocks and immediately proceed down river for the installation of her engines.

The launch having so successfully been performed, the guests adjourned to the general offices of the builders, where refreshments were served, Mr. Hugh Laing, as representing Sir James Laing and Sons, Ltd., presiding over the interesting proceedings.

In asking the company to drink heartily to the success of the good ship "Teutonian" which they had just seen so successfully and satisfactorily launched—with which toast he also coupled the name of Mr. Richard Airey as representing the owners, the Petroleum Steamship Company—the Chairman said he needed scarcely to say that so far as his firm was concerned, it was a matter of great gratification to them to have built another oil carrying vessel for their friends, for the "Teutonian" was about the sixth they had had the honour of building for the same owners. He did not think he was likely to be accused of egotism when he said that the other five had done their work to the general satisfaction of the owners, and he only hoped the same pleasant remark would apply to the "Teutonian" during her career on the oceans of the world.

The toast having been duly honoured, Mr. Richard Airey said he felt honoured at being present that day at the launching of the "Teutonian." He had been connected for many years with the Petroleum Steamship Company, and he had had the planning of the voyages for the vessels of the fleet. During the whole of that fifteen years, it had been particularly interesting to the owners to know that the ships built by Sir James Laing and Sons had always been admirably satisfactory in every possible way; in fact the owners looked upon the older units of the fleet—built fifteen years ago—as still some of their best, and they had for them something in the nature of affection. They went about the various parts of the world with the utmost regularity, and they had been remarkably free from accident and at the same time had been particularly economical as regarded working; and if the "Teutonian" could only live up to the high standard of excellence which they had in the other members of the fleet, he was sure she would be a very good and serviceable oil tanker. On behalf of the owners he thanked the company heartily for the way in which they had received the toast of "Success to the 'Teutonian."

Mr. Hugh Laing then asked the company to drink to the health of Mrs. Airey who had so kindly come from London for that occasion, and who had so gracefully named the vessel, and at the same time he, on behalf of the builders, asked her kind acceptance of a small memento of the interesting occasion. He trusted the "reminder" would be accepted in the spirit in which it was given, and that it would not only serve to recall that interesting afternoon's ceremony, but be found to be both useful and ornamental.

"God Speed the Teutonian.'

Mr. Laing then handed to Mrs. Airey a splendidly designed silver and tortoise-shell combination clock and inkstand, on which was a tablet suitably inscribed as a memento of the occasion.

Mr. Richard Airey, in replying on behalf of Mrs. Airey, expressed his thanks to the builders for the presentation made to Mrs. Airey, which, he assured them, would be greatly appreciated. As to that lady's launching ceremony, he hoped at some future time Mrs. Airey would have the honour of launching a motor ship. The ordinary steaming vessel was now at the end of the fashion, and as Mrs. Airey, like most other ladies, always studied coming fashions, she would see there would shortly be a new fashion in ships—ships which could be propelled without the adjunct of steam or funnels. Just at the moment there was some slight hesitancy on the part of both builders and shipowners to go in for the new fashion, but he believed that hesitancy was only temporary. It was just the same with the latest fashion in modes; they were not at first looked upon with absolute favour, yet in the long run they became popular. Personally, he did not think it would be long before the motor ship became as common a vessel on the world's seas as was the steamship to-day as compared with the old sailing ship of the days gone by. The motor-propelled vessel had without a doubt come to stay.

The toast of the press having been honoured,

Mr. Airey submitted the health of Mr. Dickinson, representing the builders of the engines for the "Teutonian." The owners of the vessel launched that day had had experience of the work which Messrs. Dickinson had put into other of their vessels, and it was a great pleasure to the speaker to know that the same firm were building the engines for the "Teutonian." Having congratulated Mr. Dickinson upon the past and the present, he (Mr. Airey) was not quite sure what to say about the future, except to recommend Mr. Dickinson to turn his attention to the possibilities of the internal combustion engine for marine purposes. Numerous calculations had been made as to the cost of running internal combustion engine vessels per ton mile (just as they tested motor cars for their fuel economy), and it was remarkable that when those practical results were compared with steaming upon coal, although oil was supposed to be very high in price, the economies effected were astonishing. There was, in fact, no doubt that immediately a new body of engineers was created whose menbers would be competent to take charge of internal combustion engines, a new era in ship propulsion would commence, and in this direction he hoped that in the future Mr. Dickinson, instead of being a monument in regard to the marine steam engine, would be a pillar of strength in connection with the motor propelled marine engine. He asked the company to drink to the continued success of Messrs. Dickinson and Son.

Mr. Dickinson, having briefly replied, the Chairman proposed the toast of "Lloyds," under whose supervision the "Teutonian" had been built, coupling with it the name of Mr. J. Allan.

Mr. Allan, in responding, paid a compliment to the builders for the excellent work they had put into the "Teutonian," which he said was really more than 100 A.1. at Lloyd's. He trusted the vessel would have a successful career, and that her builders would be favoured with additional orders from the same owners.

The remaining toast—that of the Chairman—was proposed by Mr. Airey, who expressed the hope that Sir James Laing and Sons, would continue to enjoy prosperity.

## PETROLEUM EXPLOITATION IN ARGENTINE.

Under this heading *The Intermediaire*, of Buenos Ayres, says :—

The economical view of the Argentine is intimately subordinated to the successive exploitation of its natural resources, beginning with those which offer a large commercial value, and which at the same time can be easily captured, stored, and exported. Such are for instance the petroliferous deposits at Comodoro Rivadavia, which according to some experts will soon be able to compete with the United States, Mexico, Galicia and the Caucasus. The Argentine deposits extend over an immense area and go between the River Chubut and the Straits of Magellan, thus practically occupying the whole of the south of the Republic. The petroliferous strata lie at a depth of from 500 to 800 metres. Since 1908 numerous well have been bored, one of which actually gives an average production of several tons per day. Comodoro Rivadavia petroleum is a very heavy oil of a specific gravity varying from 0.88 P—0.91 P. Its calorific value is equal to 10,500—11,000 calories. It represents a splendid fuel for it does not contain any benzine or paraffin. The wells of Comodoro Rivadavia are calculated to be able to yield 1,200,000 tons a year. At the present moment, the exploitation is far from being developed and the daily production amounts to but a few tons. By a special law the State has reserved for itself the privilege of putting into value the petroliferous district. Quite recently an offer of the Rothschilds was refused, as the State intends to introduce its own exploitation with the collaboration of an English bank to furnish the necessary funds.

But outside the reserve district there are very large areas with plenty of indications of petroleum and there is no doubt that there are several districts as rich in petroliferous deposits as that of Comodoro Rivadavia.

The market for the Argentine petroleum is on the spot. Argentine itself consumes yearly about 90,000,000 piastras worth mineral oils, then Chili, Uruguay, Paraguay and Bolivia also offer to the Argentine petroleum a ready market.

◆

**Omnium International de Petroles.**—The balance sheet of this company for last year shows a net profit of 4,853.027 frs., of which 2,185,000 frs. will be distributed as a dividend of 50 frs. per each of 43,700 shares. The above net profits are due to the splendid results obtained by one of the companies of the group,—the Columbia. The other company of the group—Alpha—has realised during the first six months of the year 1913-14 a net profit of 600,000 frs.

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# London and Thames Haven Oil Wharves, Ltd.

*Another Successful Year.*

## SIXTEENTH ANNUAL MEETING.

The sixteenth annual meeting of the shareholders of the London and Thames Haven Oil Wharves, Ltd., was held at the Baltic, London, E.C., on Tuesday afternoon last, Sir Owen Philipps, K.C.M.G. (chairman of the company), presiding.

The report of the directors, which was taken as read, was as under:—

"The dividend on the Preference shares for 1913 was paid on July 15th, 1913, and January 15th, 1914, and after writing off depreciation and carrying £10,000, together with the £2,057. 5s. received from premiums on fully-paid shares, to reserve (thus making the reserve £62,057. 5s.), the directors out of the available balance recommend that for the year ending December 31st, 1913, a dividend on the Ordinary shares at the rate of 8 per cent. per annum be declared, and that the balance of £15,055. 13s. 7d. be carried forward.

"In addition to the ordinary depreciation, the directors have written off £2,770. 5s. 11d., the amount of Central Wharf works, and £250 office furniture, so that the only capital item appearing on account of the company's leasehold properties is the nominal amount of £1.

"A payment at the rate of 5 per cent. per annum for the six months ending June 30th, 1913, was made in advance of the above dividend, and this amount will be deducted from full dividend when paid.

"During the year the company's freehold property at Thames Haven has been increased by the purchase of 104 acres of adjoining land.

"The company's works have been maintained in good order, and the cost of upkeep and renewals has been charged to revenue."

The Chairman, in moving the adoption of the report and balance-sheet, said: For the last eight years we have been able to recommend the payment of a steady 8 per cent. per annum, and we are in the same position to-day. The new capital which we issued in the past year, to meet the extensions of the deep-water pier, making three such piers belonging to the company at Thames Haven, to provide for new tanks, additional pipelines, buildings, boilers, pumps, etc., and for the general extension and equipment of our works, was all taken up by the shareholders. The authorised ordinary capital is fully subscribed. The usual depreciation has been written off, and the amount standing to the credit of the Central Wharf works, as well as office furniture, are extinguished from the balance-sheet. The board have been criticised in the Press for adopting too conservative an attitude in the matter of finance. What I felt was that when you have leasehold property where the lease is just terminating, the only sound principle is to write off that item from the books. We are yearly tenants of the Central Wharf, and I hope we shall continue so for many years. The reserve fund now amounts to £62,057, as during the year we were able to add £10,000 out of profits, and we also added the amount received as premium on the new shares paid up prior to December 31st. The balance carried forward is larger than last year, and is sufficient to satisfy any reasonable shareholder that the business is being conducted on very sound lines, and that the payment of regular dividends in the future is assured. We have no debentures of any kind, and the temporary loans have now all been extinguished. We had labour troubles in 1912, but I am glad to say that in 1913 we were free from outside disturbances, and an improvement in all branches has been recorded.

As already alluded to, the additions to works and plant have been considerable, and a large amount of new tankage has been erected on the west end of our property—the wharf, you will remember, which was formerly occupied by and acquired from the European Petroleum Company. Events have shown that the addition to the works has been necessary and profitable. The oil business is rapidly growing, and if this company is to keep abreast of the requirements of this growing trade, as we always have in the past, it will be necessary to make additions from time to time to meet such expansion in the general trade. We are now actively engaged in developing the Reedham property. We are erecting there a number of tanks, which are expected to be available in the latter half of the present year. As you know, our property could only be approached by water or by the railway, and when there were labour troubles some time ago it was pointed out that motor users could not get spirit from our works to London if there happened to be a strike of bargees on the river and the railway at the same time, and therefore we decided to get over that difficulty. We have now made a fine road, connecting our works with the public road, thus enabling our clients to have access for delivery purposes to the wharf and for the collection of their goods. Many of the main roads in this country are only 18 ft. wide, but our road is 24 ft. wide, and, if necessary, we are quite prepared to make it very much wider. At present it broadens out considerably towards the wharf, so as to enable easy manœuvring of vehicles, and connects the wharf with the main public road. It is a good road for heavy motor traffic, and is undoubtedly in advance of the improvements which are being looked for in the public roads for dealing with present-day fast traffic, having been constructed on the very latest principles. I hope we may receive reasonable assistance from all the public bodies concerned, from the Road Board downwards, in improving the road between the terminus of our good highway and London. There is much room for improvement in that direction. During the year we acquired 104 acres more freehold property, namely, the Oil Mill Farm. Our policy has always been to have sufficient freehold land of our own to meet all reasonable requirements for the next few years. A large number of new tank steamers have been launched during the year, with the result that oil freights, which were so high that they were making business very difficult, are now back at what, from a merchant's point of view, can be considered very reasonable figures.

Last year I made reference to liquid fuel, and it is gratifying to note that our expectations in that direction are to some extent being realised. Allusion has before been made to the suitability of our works at Thames Haven for the storage and distribution of liquid fuel. The company will in a few months have three deep-water piers capable of berthing the largest steamers afloat at any state of the tide. We have endeavoured steadily, ever since the formation of the company, to meet the requirements of the oil trade, and the nature of the services rendered by the company has been constantly extending. Besides storing oil, we refine it, distill it, and treat it in various ways. Although we had no labour difficulties to contend with in 1913, the cost of working has gone up considerably as the outcome of increased labour rates. We have obtained a quotation for our shares on the London Stock Exchange. As showing the great increase in the world's oil trade, I may mention that when the present company was formed, in 1898, the total amount of tonnage of oil-tank steamers afloat was under 400,000 tons: in 1913 the amount was 1,342,000 tons gross register, or an increase of nearly 1,000,000 tons in the last sixteen years. To show the proportion of the oil business of this country that this company carries on, I may mention that in 1913 over 22 per cent. of the total petroleum products imported into Great Britain was handled at the company's works, whilst over 68 per cent. of the motor spirit imported into the United Kingdom passed through your works at Thames Haven. I think that shows that the efforts we have made to meet the trade have been appreciated. The chairman concluded by moving the adoption of the report and the declaration of a dividend of 8 per cent.

Mr. A. C. Adams (managing director) seconded the resolution, which was carried unanimously.

The retiring director (Mr. Allan McCall) was re-elected, Messrs. Fookes, Hickman & Co. were re-appointed auditors, and a vote of thanks to the chairman and directors concluded the proceedings.

◆

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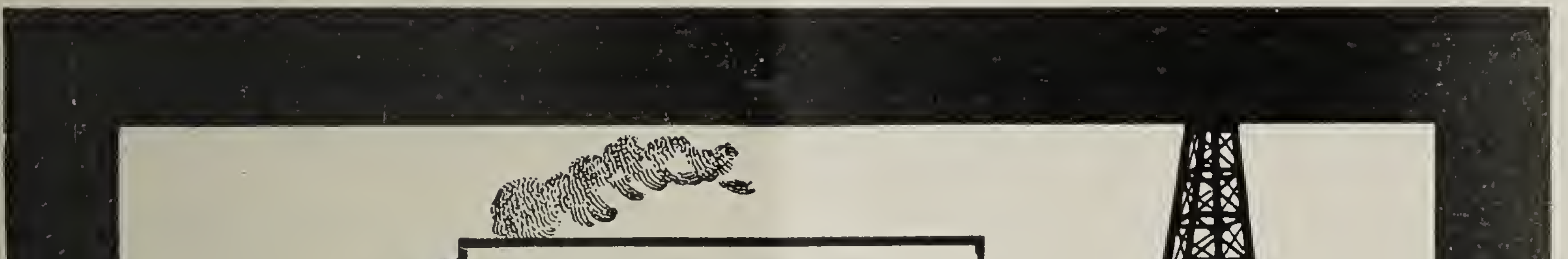

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | $\frac{5}{8}$-$\frac{11}{16}$ |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-1$\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/9-6/3 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319,181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 31/0-32/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 34/0-34/6 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 19/6-20/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{1}{4}$-1$\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 14/3-15/3 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5$\frac{1}{8}$-5$\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{2}$-10$\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 718 | 720 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,100 | 3,125 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,300 | 19,400 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,012 | 1,015 |
| Russian Naphtha Society ... ... | 100 | 256 | 258 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 244 | 246 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 34/9 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 88/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 8/4$\frac{1}{2}$ |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 42/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 36/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300.000 | £1 | 5/3 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 5$\frac{1}{4}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 9/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 70/6 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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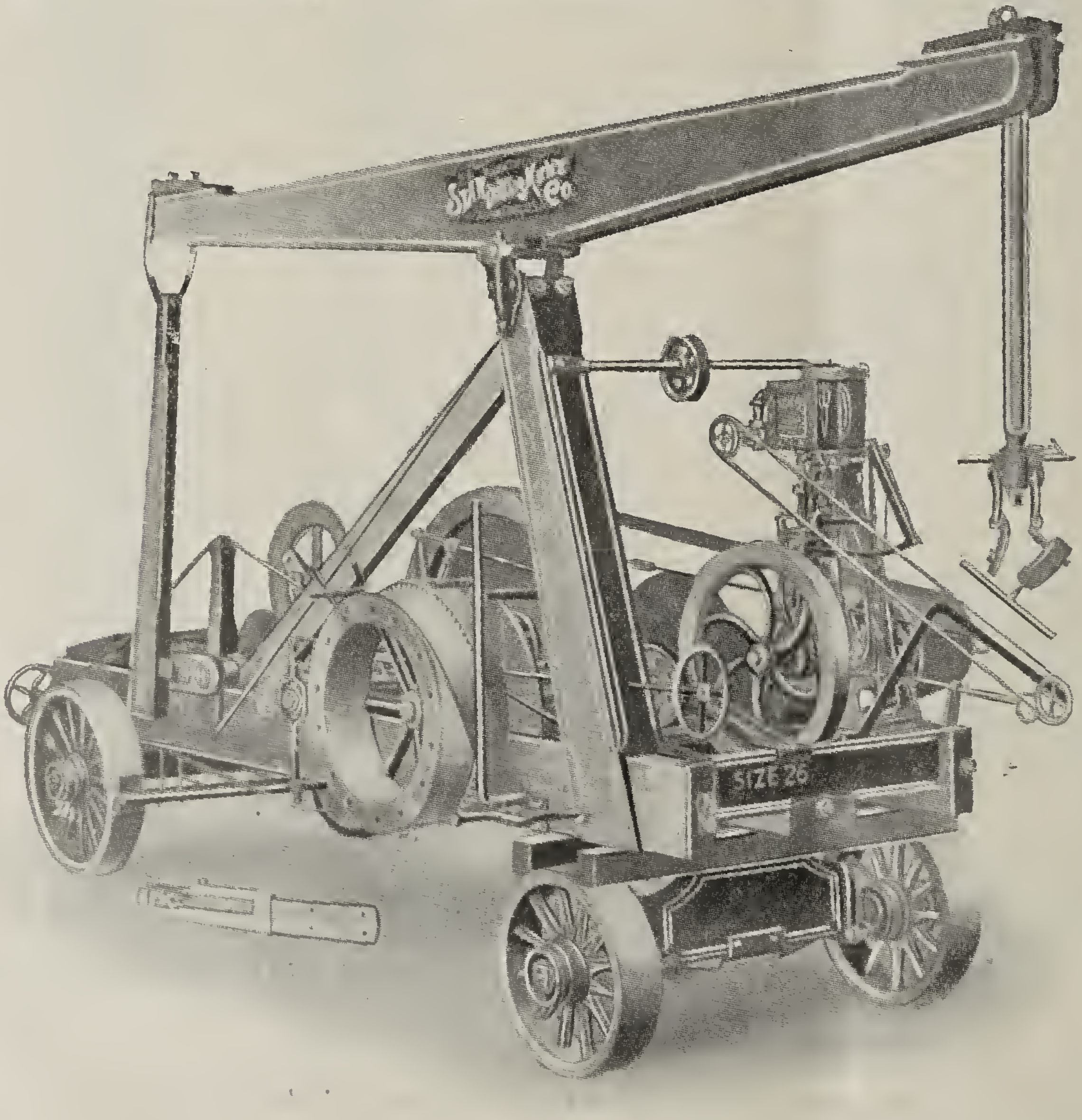

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, February 28th, 1914.

## THE RUSSIAN GOVERNMENT AND THE ROYALTIES QUESTION.

The question of reducing the exorbitant royalties at present exacted from lessees of the State oil lands at Bibi-Eibat, and to which subject we referred recently, is revived by the Russian Government Mining Department, which has issued to the lessees the following memorandum:—

> "In view of the forthcoming report of the Minister of Trade and Industry on the question of a possible reduction in the percentage imposed by the Government as royalty, and in view of repeated assurances on the part of naphtha producers that a reduction in the percentage is likely to lead to an increase in the production on the oilfields leased by them, the

Mining Department is desirous of being supplied with full details of all the wells sunk from the beginning of the lease up to the present moment, with statements of their respective depths and outputs.

"At the same time, owing to the fact that the obligatory minimum production or royalty has already been paid, and that consequently this obligatory minimum no longer exists, the Mining Department requests the lessees to state what possible obligations regarding drilling work to be effected during the next three years the lessees could take upon themselves if a reduction in the percentage, within limits found reasonable by the Government, were to take place. With this object in view it is necessary for the lessees to state the quantity of new wells that they would be ready to sink within the period 1914–1916, and their depths, as well as to inform the Department of the total quantity of sagenes that they would undertake to drill within this period, taking the depth for each well to be of 200 sagenes."

One must admit that the Department paper is drafted in an exceedingly one-sided manner. Demanding from the oil producers a definite indication and guarantee for three years regarding the number of new wells and the number of sagenes to be bored, the Department does not mention even approximately by how much per cent. it proposes to reduce the royalty. Such a careful wording of the Department's enquiry will necessarily force the various affected companies to be extremely careful in their proposals.

With an extremely changeable price of oil, and it being impossible to make calculation for the future in respect of production, which is also changeable, and is liable at times to very great and unexpected changes (sudden flooding of wells by water and other considerable damages to wells) no management can make any definite calculations or give any undertaking to the Government, not only for three years, but even for one.

Any undertaking on the lessees' part must, of course, bear some relation to the concessions which the Department is prepared to make. In no event should they commit themselves until they have something less vague from the Department than the fishing enquiry just sent out, as any offer the lessees might make prematurely would only be used against them later on.

Having fulfilled the conditions as to obligatory minimum under their leases they are at last quite free from the shackles of the Government, and they should be careful not to put themselves into the Mining Department's clutches again without valuable consideration.

In its enquiry, the Department demands that it should be stated "what number of wells and to what depth the lessees could sink within the period 1914-1916, and what is the general number of sagenes that the lessees could bind themselves to drill, supposing that each well should have a depth of not less than 200 sagenes."

As is well known, oil in commercial quantities cannot be expected at Bibi-Eibat at a depth of 200 sagenes, and therefore the drilling of any such wells would not bring about an increase in the quantity of oil produced, but, on the other hand, would be wasted expenditure. It would be far more sensible on the part of the Mining Department to leave it to the lessees to decide whether the quantity of boring, once agreed upon, shall be on new wells or in deepening wells already existing.

The Department would not lose anything by having the question treated in this manner, but, on the contrary, would sooner gain something, as instead of 200 sagenes drilled in one new well—and drilled, so to speak, fruitlessly—the lessees would have to drill these 200 sagenes in perhaps several wells, and in this manner would give a greater number of completed productive wells.

The question of royalties is one of great importance to the British Companies operating at Baku. It is now nearly four years since a Commission appointed by the State Mining Department reported in favour of reductions; that report was adopted by the Ministry concerned and by the Council of State, and then we were told that it needed only confirmation by the Duma to become law.

Over two years elapsed and then came a rise in the price of oil, which enabled certain lessees—who for years had worked and partially exhausted their properties solely for the benefit of the State Treasury—to at last make a little profit for their own shareholders. This, of course, was sufficient excuse for the Government not bringing the question before the Duma—a distinct breach of faith with the producers.

One of the worst cases we can recollect is that of the Bibi Eibat Petroleum Company, Ltd., one of the best-managed concerns in Baku. It has produced from its small plots over 100,000,000 poods (over 1½ million tons) of oil and has paid to the Russian Government nearly £100,000 in royalties, whilst its unfortunate shareholders have never received a single dividend. Happily that company, as the result of the recent reconstruction, is now in a strong financial position, and will, we assume, be able to meet the extortionate demand now made upon it without impairing the prospect of a maiden dividend payment in the coming spring.

One can only hope that the Government will soon appreciate the fact that it cannot play fast and loose with foreign petroleum interests, for if it continues its present inadvisable policy we are afraid foreign capital will give Russia a wide berth in regard to finding finance for the exploitation of its admittedly grea petroliferous wealth.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO FEBRUARY 23rd, 1914.

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IN GALLONS.

| Country. | Illuminating. |  | Lubricating. |  | Residuals. |  | Gas Oil (Solar). |  | Benzine. |  | Fuel Oil. |  | Other Descriptions. |  | Totals. |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | From Jan. 1. | Since Feb. 16. | Fro Jan. |
| Belgium .. | — | — | 7,280 | 98.960 | — | — | — | — | — | 32,220 | — | — | 160 | 680 | 7,440 | 131 |
| Canada .. | — | — | — | 4,400 | 10,530 | 18,380 | — | — | — | — | — | — | — | — | 10,530 | 22 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 7,107,800 | — | — | — | — | — | 7,107 |
| Germany .. | — | 25,050 | 23,730 | 527 260 | — | — | — | — | — | — | — | — | — | — | 23,730 | 552 |
| Holland .. | — | — | — | 2,680 | — | — | — | 55,000 | 444,000 | 1,537.780 | — | — | — | 590 | 444,000 | 1,596 |
| Mexico .. | 700,000 | 2,238,130 | 11,800 | 11,800 | — | — | — | — | — | 754,170 | 1,781,800 | 2,580.450 | — | — | 2,493,600 | 5,584 |
| Roumania .. | — | 1,958.620 | — | — | — | 875,000 | — | — | — | 983.380 | — | 1,207,910 | — | — | — | 5,024 |
| Russia . | — | 1,502,000 | 6,200 | 632,910 | — | — | — | — | — | 3,202,880 | — | — | — | — | 6,200 | 5.337 |
| U.S.A. .. | 1,696,750 | 19,414,750 | 1,786,100 | 7,812,990 | — | 13,480 | 2,740,800 | 14,922,520 | — | 1,211,600 | 435,500 | 1,763,870 | 8,910 | 112,990 | 6,668,060 | 45,252 |
| Other Countries | — | — | 2,460 | 51,860 | — | — | — | — | — | — | — | 1,030 | — | — | 2,460 | 52 |
|  | 2,396,750 | 25,138,550 | 1,837,570 | 9,142,860 | 10,530 | 906,860 | 2,740,800 | 14,977,520 | 444,000 | 14,829,830 | 2,217,300 | 5,553,260 | 9,070 | 114,260 | 9,656,020 | 70,66 |

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# International Petroleum Congresses and their Future.

### By Dr. P. DVORKOVITZ.

The Petroleum Review has already drawn attention to the "unwarrantable policy" pursued by the representatives of the Roumanian and German Committees for the standardisation of petroleum products. In order, however, that my numerous friends and readers may understand the attitude which I am taking up with regard to the discussion which has arisen amongst the various Petroleum Committees, I should like to point out the following facts, which I am sure will be appreciated by all interested in the proper development of the petroleum industry.

In 1900 I called together the representatives of the various branches of the petroleum industry and science at Paris, in order to enable them to exchange views regarding the development of the industry, and I am sure that all those who were present at the various seances recognised that that International Congress has not only been beneficial to the individuals attending, but to the petroleum industry at large.

At that Congress delegates were elected from the various countries to form national committees, with a central committee at Paris, and this latter committee has, with the assistance of the delegates of the national committees, prepared a programme for the next Congress, which took place in Liege in 1905.

In the same manner the third International Petroleum Congress was prepared, and held in Bucarest in 1907, and it was at this Congress that the question of the standardisation of methods for testing petroleum products was dealt with, and a Committee formed, consisting of the delegates of various national committees, with Dr. L. Ubbelohde as its secretary. Dr. L. Ubbelohde in such capacity has proved himself an exceedingly able man, and it is largely owing to his untiring efforts that a number of exceedingly valuable papers on the subject of examining petroleum and its products were prepared by the international committees and presented at the meeting of the delegates in London in 1909 and at a second meeting in Vienna in January, 1912.

When the Committee was appointed at Bucarest it was with the condition that the work of such Committee and the proposals made on the subject of the standardisation of the methods of examining petroleum products should be submitted to the next International Petroleum Congress.

I regret to say, however, that the mandate given to the Committee has not been adhered to, for at the meeting at Vienna the members decided to widen the objects of the Committee, and to include such questions as those of storage, transport, etc.—subjects which have in no way been entrusted to them to deal with. As a matter of fact, and with all due respect to the various members of the Committee, there are very few who are sufficiently acquainted with these particular subjects to enable them to form any practical opinions or to propose any resolutions upon these questions.

Owing to the desire of the Committees to enlarge their programme without receiving the power from the Congress, the calling of another International Petroleum Congress was postponed *sine die*, and we now find that instead of there being harmonious working amongst the various committees there is a competitive programme set up by the Roumanian and German sections, both wishing to create an International Petroleum Institute, the chief aim of which is to be a substitute for the Petroleum Congress. In my opinion such action is injurious to the industry as a whole, as well as to the healthy development of the holding of International Petroleum Congresses, and must receive the condemnation of the next International Congress.

After all there are a series of important questions which can only be decided by having these international gatherings, where representatives of all nations can meet, and give their advice on matters which concern the welfare of the industry.

Apart from the question of Standardisation of methods for examining petroleum and its products, there is the serious question of the geology of petroleum, which, in my opinion, is one of the most important and least understood subjects connected with the industry. Next there is the question of dealing with water in wells, the collecting of statistical data as to the relation of the petroleum producing strata to the sea-levels, etc. There is the economical pumping of crude oils, distillation and refining, the production of various new products, in fact there are a multitude of questions of greater importance to the industry, from the practical as well as the scientific point of view, which await the attention of the scientists, technologists, and business men engaged in various branches of the petroleum industry.

In my opinion it is therefore high time to make some arrangement by which the Petroleum Congress should be placed upon such a firm basis that there would be no rivalry between the various countries, but that everyone should place his very best knowledge and experience at the disposal of the members of the Congress. It is only in such way that we can hope for a successful holding of Congresses in the future. Obviously there must be certain fixed principles laid down, and in such a manner that every branch of the industry should be represented—that not only chemists, but also geologists, boring engineers, refiners, distributors, and in fact anyone who is interested in the petroleum industry in any way should assemble in one or other country.

In view of the above I have communicated with the delegates of the various national committees, and I am pleased to say that my friend, Dr. David T. Day, the United States delegate, who has done yeoman service at each Petroleum Congress, has agreed on behalf of his committee that the next meeting should take place in London. I have also received a letter from the delegate of the Russian National Committee—Dr. A. Gouchmann—who states that he entirely agrees that the next meeting of the International Petroleum Committee should be held in London, while the same opinion is held by the representative of the Canadian committee — Dr. Haanel. Dr. Raikow, of Sofia, Bulgaria, has also accepted the proposal, and Mr. Hauan, of Vallo, Norway, informs me that a meeting of his Committee is to take place shortly, and that he is quite sure that the members of his section will support the proposal of holding the next Congress in England. I am confident that other Committees will give their approval and support, and thus I hope to be able shortly to announce further details.

Let me say in conclusion that as the founder of Petroleum Congresses, and as one who appreciates the great value of such international gatherings, I have an earnest desire to see the Congress movement go ahead, and it is this desire which causes me to deplore the unwarranted step taken by the Roumanian and German Committees, who to satisfy there own ends evidently prefer the formation of "International" Institutes. Had the subject come before a duly constituted Congress, I, for one, would certainly have favoured such a proposal for Roumania, where an important petroleum industry is developed upon up-to-date lines, and where students could consequently gain a knowledge of oil-field matters which would be impossible in other than oil-producing regions, but why Karlsruhe should have its "International" petroleum Institute I am at a complete loss to understand. It would be interesting also to learn upon what authority the British Government is approached for support to this new Karlsruhe authority.

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# THE GERMAN BENZINE MARKET.

UNDER this heading Mr. A. Schropp contributes the following very interesting article to our contemporary the *Moniteur* :—

In the history of the German petroleum trade the development of the benzine market forms one of the most interesting parts, although it is very often treated in an erroneous way. The dissolution on December 31st, 1913, of the Vereinigte Benzinfabriken G.m.b. H. Hamburg, which was the sole agency of the Asiatic Petroleum Company and of the Steaua-Romana, affords an opportunity for a close study of the development of the situation of the German benzine market, and to form a view as regards its future on the basis of past results.

When fifteen years ago the manufacture of internal combustion engines for motor-cars began to grow at a rapid rate, benzine in its capacity as a generator of power rapidly acquired extraordinary importance. That is why the German chemical industry has devoted special attention to this product, and also why there were created several benzine refineries for the development and protection of which the Government introduced the highest duties on the import of refined benzine in order to favour the crude product to be treated in the German refineries. The benzine refineries were also favoured by influential tariffs on the German railways, and thus a way was paved for the development of the German benzine market.

The supply of necessary quantities to Germany, which at the beginning was very weak, was practically exclusively made by the Standard Oil Company. In order to obtain favourable prices from this latter concern, the German refineries have since united. At the same time Roumanian and Galician raw benzine has commenced to be imported, although in small quantities, on the market.

In 1904–1905 the principal supplier of the united benzine factories, owing to the increasing demand in America itself, left the former without supply, and as neither Galicia nor Roumania could replace this supply, German factories were at that time in a very precarious position. Then there entered a new factor, viz., the group of Koninklijke-Shell, which commenced its exploitation on a large scale in 1901, especially on its petroliferous lands on the North of Sumatra, Palembang and Borneo, and which company naturally looked for new markets for the benzine extracted from its own petroleum, for which purpose it formed in 1902 in London a distribution company for sales, under the name of the Asiatic Petroleum Company.

The united benzine factories amalgamated with a Dutch group and entered into a contract with it, being guaranteed permanent supply of large quantities of benzine. In 1903 the Steaua-Romana, re-organised by the Deutsche Bank, also joined the above amalgamation, and entered into a contract with the Asiatic on the basis of which it supplied the latter with all its benzine. In this way the Vereinigte Benzinfabriken practically became an agency of the Asiatic and the Steaua-Romana, and during the following years competed acutely against the German-American Petroleum Company, which then, owing to the increase of the American production, could again forward large quantities of benzine to the German market, and also against the group "Dea" (Olex) and the Galician factories, who supplied benzine direct to the German traders and consumers without the intermediary of the German united refineries.

But then there started a tendency of the Asiatic Company to build their own refineries and to act quite independently of the German refineries. In 1913 the Asiatic formed the Benzinwerke Regensburg, Ltd., and together with the refineries built previously, they disposed of three other large refineries in Germany, and this separatist policy of the Asiatic has practically been the reason of not renewing the contract expiring on December 31st, 1913, with the Vereinigte Benzinfabriken.

This proceeding of the Dutch-English group meant great danger for the independency of the German benzine factories, but this danger becomes still greater owing to the fact that another group, "Olex," has recently acquired a number of German factories, and has thus realised the possibility of the exclusion of the German element from the refining trade in benzine. The danger has been avoided *pro tem.* by the dissolution of the Vereinigte Benzinfabriken, and by most of the factories joining the Steaua-Romana, and in future these factories will treat the crude benzine of the Steaua-Romana, which will be imported on the German market in much larger quantities, and thus reverse the previous situation when the bulk of the Roumanian benzine was exported to France.

For the supply of the German market the Steaua-Romana has taken all necessary measures by means of creating a navigation company, viz., the Bayerischer Lloyd, of Ratisbonne, where the Steaua-Romana possesses a separate branch. The policy of the Steaua-Romana at present is to create separate companies in each of the most important centres of Germany. Thus a subsidiary company exists at Ratisbonne, another at Hambourg, one at Bremen, etc.

The actual situation on the German benzine market is therefore not bad. Prices, although in general having undergone a fall, are still at a very high level, and it cannot be at present foreseen with certainty how the development of the situation will affect the prices in the future, especially as statistics as regards the stores of benzine are not published.

In any case one fact is certain, that the consumption of benzine will increase. In 1913 the consumption in Germany amounted to 249,106 tons, showing an increase of over 100,000 tons in comparison with 1909, when the consumption was only 135,000 tons. The consumption in England only amounts to about 300,000 tons, and in France to 180,000 tons. The general opinion that the independent proceedings of the three large groups on the German market will cause great competition is certainly erroneous. In the presence of three such large groups there is no chance whatever of any competition of this kind, which, on the contrary, would be possible in the case of only two groups fighting against each other, and it is highly probable that prices will not go down. Another erroneous supposition is also that the freights are influencing the prices of benzine, which is not at all the case. Each of the large groups producing raw material possess their own fleet of tankers, and therefore do not take into account the current freights existing on the international market.

# Relation of Oil Deposits to Geo-Tectonic Structure.

**By Mr. E. H. PASCOE, M.A., in his Treatise, "The Oilfields of Burma."**

IT has been generally noticed that oil deposits usually lie close to and parallel to chains of mountains, and, as Fuchs and de Launay note, preferably along the external curve of their folds ("*la courbure externe de ses plissements*"). Many of the mountain chains which accompany oil belts have been produced during the breaking up of some continent. They frequently contain on their flanks deposits of a later age than those of the continent itself, and then evidently consist of a core of the continental rocks and some of the sediments laid down in the sea which occupied a strip of the continent submerged. In any case the formation of the mountain range is accompanied by the submergence of a parallel strip of the old continent, giving origin to gulfs, lagoons, salt lakes or salt marshes, lying between the mountain range and the remains of the continent, and it is in these that petroleum seems to have been produced. The gulf, on becoming silted up, gives rise to a river valley, a region which is so often found to be the seat of Tertiary oil deposits (*cf.* Roumania, Galicia, Mesopotamia, and others). The parallelism of the oil belt to the mountain chain is a proof that the latter was initiated before the formation of the former.

In Cretaceous times the old Gondwana continent, which once extended, not only from India to Burma, but to South Africa and Australia, was bounded on the north and east by the remnant of the ancient Tethys Sea, covering a great part of Tibet, the northern frontier of Sikkim, the Shillong Plateau, and the region east of he Shan States. According to Mr. Hayden, the Cretaceous of Burma and Assam were deposited in an rm of the Pacific which may or may not have been onnected with the Tibetan Sea. The western margin f the Shan Plateau is in all probability a part of the ld Gondwana continent, the crystalline rocks of which t is composed resembling those of the Indian peninula. The Shan Plateau, therefore, corresponds to the mountain chain, while the old arm of the Pacific, which ubsequently became divided longitudinally by the Arakan Yoma, and is now in part replaced by the plains of Burma with their oilfields, represents the ubmerged strip of continent and the initiatory stage f the petroleum gulf. Relics of the old continent are found here and there in the Irrawadi Valley, such as the ridge of gneiss near Sagaing, and fragments of the ame rock thrown out of volcanic vents. Captain Gage's nteresting botanical work in the Minbu district shows hat the flora of the Desert or Dry Zone of Burma ontains many species found in the Deccan and in Africa, indicating an equi-climatic connection at no ery ancient period between Burma and the Indian ortion of the Gondwana continent; there is a Malayan lement as well in the Indian flora. By a movement rom the north, commencing probably in late Cretaceous, the Himalaya region commenced to rise above the cean, and by a smaller and probably slightly later movement from the east the Shan Plateau was initiated, the results of the two movements meeting in the north-east of Assam. Here the two arcs have interfered with one another, and the general trend of the physical features (*e.g.*, the Patkoi Range and Brahmaputra) and of the folds is E.N.E. to W.S.W. The series of alternating domes and basins noticed in the extreme north-east of the province is no doubt the result of the joint action of these two wave-fronts which cut each other at an acute angle. The main effect of the movements would be to produce the two mountain systems of the Himalaya, on the one band, and the Shan Plateau, on the other; but for distances beyond, especially from the great Himalaya mass, we should expect outlying subsidiary folds produced by outlying rock-waves concentric with those which formed the main chains. In Burma the predominant folding has been caused by the E. to W. movement, the Shan Plateau being much closer than the Himalaya. The effect of the Himalayan movement is seen, however, in the rising or pitching of the N. to S. anticlines or the formation of domes. It is this dome or quasi-dome structure which is in Burma so favourable for the collection of oil, just as it has been found to be by Züber in Galicia, and by Tobler in Southern Sumatra.

Before the outlying folds were formed, and while the Shan Plateau was still young, an extensive gulf between the remnant of the Gondwana continent on the west and the rising plateau on the east stretched up northwards, as we have seen, towards Assam, occupying a submerged tract of the old continent. Theobald concluded that the axis of the Arakan Yoma, which we may regard as an unusually large outlying fold containing a number of tight subordinate folds, was initiated in Nummulitic (and possibly Negraïs) times, and since he found Nummulitic and Negraïs beds of the same type on both sides of the Yomas, we conclude that the gulf at this period extended across where these mountains now are. It appears, in fact, to have coincided with the arm of the Pacific in which the Burma and Assam Cretaceous were previously laid down. Plication of the beds proceeded contemporaneously but interruptedly with deposition. The rocks of Theobald's Nummulitics resemble in most respects the newer Pegu strata, and were evidently deposited under very similar conditions. Coal, lignite, and petroleum are common to the two series. So far no oil occurrences have been reported in Cretaceous beds in Burma, and we are unaware whether the conditions about to be described existed then or earlier still. The Nummulitics lie too close to the Yoma axis, and their folds have been usually too much denuded and dislocated, to be capable of retaining much oil; little is known of them and of the oil occurrences in them, which so far appear to be restricted to the higher beds of this series. It would be premature to discuss the conditions attending the collection of the petroleum

"Ur-material" in the Nummulitics, especially as these must have been similar in every way to those under which the more important and better-known Pegu deposits were accumulated. Since no strata have yet been found west of the Arakan Yoma (identical with all but the lowest Pegu beds found in the Irriwadi valley), we are justified in assuming that the Yomas had by this time risen sufficiently high to separate off a smaller gulf to the east.

It is the gulf between the Yomas and the Shan Plateau, coinciding more or less with the Irrawadi basin, which we have now to consider. The movements we are assuming to have gone on during the deposition of the whole of the Tertiary system with occasional periods of interruption, and perhaps not yet to have ceased. To allow of the accumulation of such a great thickness of Tertiary beds, the gulf must as a whole have undergone continuous depression. This would be but a natural outcome of the steady approach of the Shan Plateau westward towards the Yomas, the silting up of the gulf compensating for and accompanying this depression. In addition to and in contradistinction to this epeirogenic movement, was the orogenic folding of the gulf sediments into the anticlines and synclines with which we are familiar in the plains of Burma. This orogenic folding, including that caused by the N. to S. movement, no doubt was going on during Pegu times, and some of the anticlines probably commenced before, but the greatest folding, especially that due to the E. to W. movement, must have taken place after the gulf had become silted up, i.e., during and after the Irrawadian period. The principal effect of this movement during the later Pegu period seems to have been the formation of the overfolded Arakan Yoma. In the Andaman Islands which are a continuation of the Arakan chain, the "Eocene" beds (Nummulitics) are described as much disturbed while the overlying "Miocene" (Pegu) are only very slightly. The gulf had an opening somewhere to the south, through which sharks, nautili and other shell-fish could gain access. The saltness of such an enclosed sea depends upon the ratio between evaporation and the total volume of the river-water replenishing it. It is probable that the climate was very similar to what it is at the present day in the Dry Zone, and which has already been described as sub-desert in character; it is the torrid equivalent of the "steppe" climate of colder regions, and is the climate which many eminent writers favour as that under which the formation of petroleum, and the salts which almost invariably accompany it, would be likely to take place. In such circumstances, especially since the area in question is close to the present equator and there are no reasons against assuming that the temperature was high, evaporation of the shallow water might sometimes exceed the replenishment from the rivers, most of which during the greater part of the year would be reduced to mere streams or dry channels. The largest of these probably entered at the northern end, the ancestor of the present Irrawadi. At the end of Pegu times concentration of the water and deposition of gypsum, sodium, chloride and small quantities of other salts would take place, not in any thick masses probably, but mixed up with the silts. No actual beds of gypsum or salt have been found in the Pegu, nor in the Nummulitics so far as I am aware, the former always occurring in flakes of the transparent form known as selenite. Whether the water of the gulf either in Nummulitic or early Pegu times ever became sufficiently concentrated to permit of the deposition of gypsum and rock-salt is not known. It is, however, certain that concentration took place at the end of the Pegu period when the gulf became silted up. Part of the salts may have actually separated out in beds, but, if so, they appear to have been dissolved and redeposited subsequently. As we have assumed movement co-existent with sedimentation, there would have been contemporaneous erosion, and the saturated salt water would have every opportunity of gaining access through the denuded surfaces to deeper Pegu horizons or even to Nummulitic or older strata; in contrast to the behaviour of petroleum, salt water being a dense liquid would sink whenever the opportunity presented itself, and would become imprisoned in the folds. Subsequent faults would aid in the further distribution of the salts. The above hypothesis would explain the absence of actual beds of gypsum in the Tertiaries, the capriciousness of its occurrence in flakes, the general absence of the latter in the Irrawadian beds deposited after the gulf had silted up, and their practical confinement to the higher horizons of the Pegu during the final stages of this process. One result of the salinity of the water is the frequently stunted and dwarfed nature of the molluscs; this has already been referred to and is especially noticeable in the two or three small patches of shells found in the Yenangyaung field. With the exception of a few *Pyrulæ* and *Nautili* there are no large shells in the Pegu, most specimens being of small, often of abnormally small, size; the best developed are found in the deepe water phase, e.g., the Kama Clay near Prome.

It has been stated in other publications that the Pegu beds, at least in part, were deposited under estuarine o brackish-water conditions. In some respects this i true, since much of the material would be deposite beneath almost fresh water at the mouths of the rivers whose deltas they in reality form within the gulf; th occasional presence of vertebrate remains, fragmentar but often very little worn, in the higher Pegu, is i agreement with this. There results then a salt gul with shifting sandbanks, and flat shores bordered her and there by marshes and swamps, those higher up th mouths of the rivers being more or less fresh. In th fresh marshes or bogs lignite and coal we assume wer formed, mostly in small quantities, except in the nort and north-east, where fresh water was much mor abundant and larger deposits were possible. Oil o the other hand might have been produced in the sa marshes along the coast or in the sandy shallows of th bed of the gulf forming the outer portions of delt to the streams, which for a short time during the ye would be swift torrents, with sufficient power to bri down quantities of macerated drift wood, and to cov up rapidly with sediment this or any other kind organic matter accumulated in marshes or elsewher During the quieter period of the year clay would deposited to form subsequently caps to the oil-san forming beneath. Small colonies of fresh-water she such as *Batissæ*, living in the fresh-water pools, wou sometimes be swept down by the floods and buried the gulf sediments: in fact we should have loc patches of sediments deposited in almost fresh wat side by side with beds containing molluscan she dwarfed by the salinity of the water they lived in.

(*To be continued.*)

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**The Californian Mining Laws.**—In response to a demand from many interested in mining in California, the Californian State Mining Bureau has recently published, for free distribution, a bulletin containing the mining laws of California.

**Heavy Rains Retard Developments.**—Owing to recent heavy rains, all oil developments in the State of California have suffered considerably. Transport has been next to impossible; consequently, much delay has been experienced in getting oil-well supplies to the fields.

**The Fullerton Oil Company.**—This company which operates in the Brea Canyon and Olinda fields of California paid its regular quarterly dividend of five per cent. for January together with an additional dividend of fifteen per cent. During the past year this company has paid forty per cent. dividend.

**To Prevent Blow-outs.**—The REVIEW learns that the Union Iron Works of San Francisco is now marketing what is known as the "Union" blow-out preventer—an ingenious device which should be in great demand, not only in the Californian fields, but other oil-producing regions where gas blow-outs are of frequent occurrence.

**A New Californian Company.**—With the formation of the Pitt Oil Company in Pittsburgh, Pa., a new organisation backed by trong finance enters the Californian fields. The company will operate upon a lease near Redondo, but it is expected that the operations of the concern will be of wide-reaching scope and of great importance.

**A New Sand in the Santa Maria Field.**—The Santa Maria Oilfields of California, Ltd., operating on the Shaw Ranch in the Santa Maria region has developed an important light sand at a ittle less than 1,200 ft. The well was drilled in eleven days with ne of the new all-steel rotaries of the Oil-Well Supply Company, eing finished with a Star portable rig.

**New Tankers for the Californian Trade.**—The first of four arge oil-tankers built for the General Petroleum Company recently rrived at Los Angeles and took her first cargo on board for South merican ports. She is the "De Sabla," and has an oil capacity of 0,000 barrels. Her sister ships will be the "Barneson," "Sloss," nd "Colgate." The vessels are English built.

**The Claremont Oil Company.**—The Claremont Oil Company alifornia held its annual meeting last month, when it was nnounced that during 1913 the company paid dividends totalling early $50,000. During the latter part of the year dividends were iscontinued owing to the necessity for improving the properties nd remedying the water trouble in the Coalinga wells.

**To Encourage the Study of Oil Engineering.**—Following he lead of the Birmingham University, the University of California as just announced a new course in the college of mining—a course f petroleum engineering. This will include instruction in the rilling, handling, refining, chemistry, etc., of petroleum, and everal lectures upon the various subjects are to be arranged.

## RUSSIAN.

**Bakht Petroleum Company.**—The Bakht Petroleum Company has acquired plot No. 56 at Saboontchi, of an area of 1,096 quare sagenes.

**Grosny Production during January.**—The total production crude oil on the Grosny oilfields during January amounted to 985,000 poods by baling only.

**Tariffs from Grosny to Novorossisk.**—At its last meeting he Tariff Committee fixed the tariffs for the transport of lubriting oils from Grosny to Novorossisk at 17 copecs. to be applied r export only.

**Petroleum Trade in the Irkutsk Province.**—The Irkutsk xchange Committee has addressed the Ministry of Trade and dustry with a demand for the elaboration of measures to develop e trade of petroleum products in the district of the River Lena.

**Increase of the Per Pood Tax in the Kuban and Terski rovince.**—The Minister of the Army has considered it necessary increase the per pood tax of the oil delivered from the Kuban d Terski Kozak terrains from one-fifth copec to half copec per od.

**Russian Nafta Society.**—The Russian Nafta Society has been granted by the Caucasian Governor the right of leasing five dessiatines of State petroliferous land at Baladjari, in the Baku district, for a period of twelve years, with the right of renewing for another similar period.

**Plots in the Kuban Province.**—The Kuban Administration has granted a lease for twenty-four years of the following plots:—Nos. 446 and 698 to Andreas, No. 644 to Avakanz, No. 633 to Melikoff, Nos. 36 and 41 to Milovidoff, Nos. 31 and 34 to General Alexander Schmidt, and another twelve plots to various companies and private persons.

**Scotch Paraffin Free of Duty.**—The Austrian paraffin refiners have addressed the Russian Government with a demand to annul the privilege of the Scotch refiners to import paraffin free of duty, as this allows the Scotch refiners the privilege of 8 kronen per 100 kilos in comparison with the privilege of the Austrian producers. This demand has not been satisfied, and Scotch paraffin is now entering Russia duty free.

**Coal from Abroad for Russian Railways.**—During 1912 and 1913 there have been altogether imported about 128,000,000 poods of foreign coal, of which 97,000,000 poods are for the State railways and 31,000,000 poods for private concerns. No less than 93,000,000 poods have entered by way of the Baltic Sea, and 35,000,000 poods by the Black and Azosk Seas. Of the above quantity 36,000,000 poods are for consumption during 1914.

## ROUMANIAN.

**Railway Transports.**—The transport of petroleum products on the Roumanian railways continues to be very difficult, which causes considerable delay to the industry.

**Servian Monopoly and Roumanian Kerosene.**—The Servian State monopoly has demanded the Steana-Romana to supply it with 200,000 cases of kerosene which have te be forwarded via Salonica.

**Doftanetz.**—Well No. 28, Anglo-Roumanian Oil Company produces 25 tons a day, well No. 1 Jean Goldfeld 20 tons a day, well No. 1 Standard Petroleum Exploitation has been deepened and has now met a new stratum of petroleum.

**Runcu.**—Well No. 251 of the Steaua-Romana continues to produce 5 tons a day and No. 1 Orion 15 tons a day. Well No. 246 Steaua-Romana is in eruption and well No. 1 Astra-Romana is on the point of striking a petroliferous stratum.

**Chiciura.**—Well No. 28, B, Margulies has been deepened and produces now 60 tons a day. Well 235 Steua-Romana has struck a petroliferous stratum at a depth of 617 metres. New wells have been commenced by the Steaua-Romana, Alpha and Orion companies.

**Gropi.**—Well No. 31 B. Margulies is now producing 20 tons a day. Wells No. 79 Columbia and 302 Orion produce 25 tons a day each. Boring has begun of well No. 8 Petrolul, and No. 3, N.C. of Rucareanu, while five wells of the Orion, three wells of Columbia, one well of the Arnhemsche and two wells of the Concordia are being drilled.

**Nafta Company.**—On February 10th a special general meeting of this company took place which has authorised the increase of the capital from 3,000,000 frs. to 4,650,000 frs. The production of the company has been declared to be very favourable for the month of January of this year, amounting to 3,238 tons as against 1,105 tons obtained during the corresponding month of 1913. The company now has a total average production of 125 tons a day, of which 110 tons are obtained at Arbanash and 105 tons at Bustenari.

**Societe Francaise des Petroles de Bordeni.**—This new company has now commenced its operations. The acquisitions of the new company in Roumania consist of 45 hectares at Bordeni, 10 at Runcu, 30 at Mislishoara, 148 at Miliceshti and 45 per cent. of the crude production from the well A B. Acquiia Franco-Romana at Bordeni. The capital of the company is 1,850,000 frs. divided into 3,700 shares of 500 fcs. each, and there are also 1,850 founders' shares without a determined value. The offices of the company are at Lille and Paris.

# The American Oil Market.

### Saturday, February 14th, 1914.

THERE has been no further variation in the crude market during the week, says the *Oil Paint and Drug Reporter*, and the only interesting development affecting the crude situation has been the report of pipeline operations during January. In the high-grade fields, including Pennsylvania, Lima, Indiana, Kentucky, and Illinois, there was a decline in runs as well as deliveries, but stocks at the close of the month showed an increase. In the Kansas-Oklahoma fields there were gains in runs, deliveries, and stocks, while in the Texas-Panhandle section increases were shown in runs and deliveries, but there was a decline in stocks.

The Western Kentucky counties promise to be the scene of active development at the extensive rate of leasing, and preparations are being made for several early tests regardless of the season. Meade, Hancock, McLean, and Webster counties have been the centres of leasing activity. No important wells have been drilled in the established fields of the State since the first of the year. Most of the new work now in progress in Eastern Kentucky is located in Morgan county. Declines in completions and new productions have been the record of the Lima fields of North-western Ohio and Indiana during the week. The banner development is still the Sullivan district of Indiana. Of the twelve completions, eight came in producers, with a total daily average of 1,105 barrels. The most important strikes were two wells good for 250 barrels a day, while two others were rated as 150-barrel producers. The limits of the pool are being gradually extended. In the Ohio end operations are well confined to the established districts, and the wells show an average production of about twenty barrels.

In the Texas-Louisiana oilfields the week's record shows forty-two completions, 4,975 barrels of new daily production, and thirteen dry holes, as compared with fifty-three completions, 7,520 barrels of new production, and sixteen dry holes for the former week. The loss in new production is charged against the Gulf Coast fields, the Panhandle, Texas, and Louisiana districts contributing a more favourable showing. The most significant feature of the week was the drilling in the De Soto Parish district of Louisiana of a 20,000,000-cubic-foot gas well spraying about ten barrels of oil. The well blew off its gas head, and the following twenty-four hours placed to its credit 1,800 barrels of oil. Another important completion was a well in Orange county, Texas, indicating 100-barrel producer on the pump, but which was estimated to be good for considerably larger capacity. The well is more than a mile in advance of the nearest producer. The best completion in the district was an 800-barrel strike of 18 gravity oil in the Sour Lake field. Edgerly is regarded as one of the most promising districts, and furnished a 500-barrel well. One of the Vinton wells has been holding up at 4,000 barrels. In the Panhandle section much interest was centred in a gas well at 1,950 ft. deep, which is likely to encourage further drilling in the hopes of striking an oil pay.

## Refined Products.

The week's development in the local market for illuminating oil have signified no departure from the conditions which have prevailed during recent weeks, and the general situation is rather characterless. Seasonable influences operate to the advantage upon domestic trading, and a sustained movement foreign consumption is noted. Clearances for the current week from the local port were 14,317,600 gallons, as compared with 9,213,915 gallons for the former week, with bulk shipments amounting to 10,690,190 and 3,260,000 gallons respectively. Since the first of the year local exports have attained 62,879,145 gallons, as against 67,810,930 gallons for the corresponding period previously. There has not been the same activity in charters for forward shipment, and the only engagements closed during the week were 115,000 cases, 10 gallons to the case, from Port Arthur to South Africa, basis of 18 cents one port, March, and 175,000 cases New York to Australia, 16½ cents March.

The following tank steamers cleared from New York during the past week with refined petroleum, naphtha and gas oil in bulk :—The Dutch steamer Chester, for Antwerp, with 1,175,000 gallons refined ; the British steamer Petroleine, for Furt Blaye, with 1,886,705 gallons refined ; the British steamer Tonawanda, for London, with 1,450,000 gallons gas oil ; the British Steamer Arab, for La Pallice, with 1,303,485 gallons refined ; the British steamer San Gregorio, for Rotterdam, with 4,950,000 gallons refined, and the German steamer Willkommen, for Stockholm, with 1,375,000 gallons refined.

### CLOSING QUOTATIONS.

### CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were :—

| | 1913. Feb. 14. | 1914. Feb. 14. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.05 | $2.50 |
| North Lima ... ... ... ... | 1.28 | 1.49 |
| South Lima ... ... ... ... | 1.23 | 1.44 |
| Indiana ... ... ... ... ... | 1.23 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.11 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.83 | 1.03 |
| Humble, Tex. ... ... .. ... | 0.75 | 0.90 |
| Saratoga ... ... . . ... ... | 0.75 | 0.90 |
| Sour Lake, Tex. .. ... .. ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| ,, Kern River heavy ... | — | 0.35 |
| CANADIAN OIL ... ... ... ... | 1.68 | 1.89 |

### REFINED—FOR EXPORT.

| In cents. | | Week ended Feb. 14. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... | ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... | ... | 8·75 | 9·75 |
| Cases, New York ... ... | ... | 11·25 | 12·25 |
| Cases, Philadelphia ... ... | ... | 11·25 | 12·25 |

### NAPHTHA AND GASOLINE.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... ... ... ... | 29½ |

### REFINED IN CASES—110 FIRE TEST.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

### REFINED—JOBBING LOTS.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½- |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 7,278,490 | 37,332,610 | 17,008,905 |
| Refined ... ... | 26,169,475 | 94,784,585 | 101,335,490 |
| Naphtha ... | 949.685 | 7,986,510 | 7,066,790 |
| Gas oil ... ... | 3,677,990 | 7,808,260 | 9,532,580 |
| Fuel oil... ... | 585,635 | 6,373,545 | 15,207,260 |

WORTHINGTON & BOLER
LIVERPOOL, LONDON & GLASGO

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co, 61, St. Mary Axe, E.C.

February 27th, 1914.

There are no changes in the prices of Refined Petroeum, which remain as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS.

The official quotations are unaltered, being for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

This is now quoted 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL.

The market price is 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

s unchanged, being quoted for the best quality 1s. 9d. nd for the second quality 1s. 7d. per gallon retail in London.

### TURPENTINE.

The American Turpentine market is not quite so firm, quotations now being for:—Spot, 31s. 10½d.; March/April, 32s. 1½d.; May/August, 32s. 10½d.

## LIVERPOOL.

February 25th.

Petroleum oils have a steady sale, and former urrencies are asked for Refined, 8¾d. being still quoted or Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## INDIA.

Bombay, January 25th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| ising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| ising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| ull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| ull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| wan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| wan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| nchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| hell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| nchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| erosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| urmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, February 24th.

Refined, in cases, is quoted at 11·25; Standard White 8·75; Credit balances, 2·50.

Philadelphia, February 18th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, February 24th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, February 24th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 39½–40 copecs per pood spot. Kerosene, 49–49½ copecs. Residuals, 38–38¼ copecs.

## ROUMANIA.

February 24th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·20–8·30 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–6·75 |
| ,, ,, ,, | Policiori... | 5·50 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

February 23rd.

Crude oil is quoted 8·20 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date February 26th as follows:—

The pooling scheme to control the output is to be called "The Tin Plate, Black Plate, and Terne Plate Conference," and is to come into operation early in April. The market is steady, with prices a shade easier owing to the fall in the price of tin. We quote oil sizes to-day as under:—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... ... | 13/7½ | per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, ... ... | 19/3 | ,, ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
JOHN M. THOM,
Canal Works,
Patricroft, MANCHESTER.
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

Specially prepared for this Journal by the Customs House.

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FOR THE WEEK ENDED FEBRUARY 23RD, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Feb. | London— | | | |
| 17 | W. Hodgson & Co. | Lub. | 200 | Riga |
| 17 | S. Capon | ,, | 2,600 | New York |
| 17 | J. Thompson | Lub. Gr. | 2,950 | ,, |
| 17 | Anglo-American Oil Co. | Lub. | 1,088,630 | ,, |
| 17 | British Petroleum Co. | Lamp | 730,900 | Port Arthur |
| 17 | ,, ,, | Gas | 1.029,500 | ,, |
| 18 | Port Authority | Lub. | 6,300 | Hamburg |
| 18 | E. G. Boize | Lub. Oil and Gr. | 220 | ,, |
| 18 | M. Golodetz | Lub. | 6,000 | Riga |
| 18 | Vacuum Oil Co. | ,, | 31,770 | New York |
| 18 | Port Authority | ,, | 250 | Antwerp |
| 19 | ,, | ,, | 440 | Hamburg |
| 19 | ,, | ,, | 480 | Marseilles |
| 19 | L. Freeland | Lub. Gr. | 130 | Antwerp |
| 19 | British and Foreign Wharf | Lub. | 220 | ,, |
| 19 | Anglo-American Oil Co. | ,, | 31,440 | New York |
| 19 | H. P. Wheatley & Co. | Lamp | 684,000 | Port Arthur |
| 19 | Asiatic Petroleum Co. | Benzine | 10,000 | Rotterdam |
| 20 | Anglo-Mexican Petroleum Products Co. | Fuel | 428,800 | P. Mexico |
| 20 | ,, ,, | Lub. | 11,800 | ,, |
| 20 | Union Lighterage Co. | ,, | 8,000 | New York |
| 20 | Scott's Wharf | ,, | 2,000 | ,, |
| 20 | Mercantile Lighterage Co. | ,, | 7,480 | ,, |
| 20 | Vacuum Oil Co. | ,, | 80 | Antwerp |
| 20 | A. Duckham & Co. | ,, | 1,800 | ,, |
| 20 | Bramwell, Fern & Co. | ,, | 6,010 | Philadel. |
| 23 | Bowring Petroleum Co. | ,, | 1,230 | ,, |
| 23 | Anglo-American Oil Co. | ,, | 10,640 | ,, |
| 23 | J. W. Cook & Co. | ,, | 21,360 | ,, |
| 23 | Anglo-American Oil Co. | Gas | 1,054,760 | New York |
| 23 | Scott's Wharf | Lub. | 3,000 | ,, |
| 22 | Langley, Smith & Co. | ,, | 4,520 | ,, |
| 23 | E. G. Boize | Lub. Gr. | 300 | Hamburg |
| 23 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 2,960 | ,, |
| | Liverpool— | | | |
| 17 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 17 | A. Hopps & Sons | Lub. Resid | 7,800 | Halifax |
| 17 | Bennett's Haulage, etc., Co. | Lub. | 3,690 | Philadel. |
| 18 | Worthington & Boler | ,, | 8,000 | New York |
| 18 | Vacuum Oil Co. | Lub. Oil and Gr. | 64,560 | ,, |
| 18 | White Star Line | ,, | 240 | ,, |
| 18 | Anglo-American Oil Co. | Lub. | 59,360 | ,, |
| 18 | ,, ,, | Lub. Gr. | 1,200 | ,, |
| 18 | Great Western Railway | Lub. | 2,600 | Baltimore |
| 19 | King, Bailie & Co. | ,, | 2,460 | New York |
| 19 | Bowring Petroleum Co. | ,, | 900 | ,, |
| 19 | W. B. Dick & Co. | ,, | 11,800 | ,, |
| 19 | D. Currie & Co. | ,, | 800 | Hamburg |
| 19 | Pickford's | Lub. and Paste | 250 | ,, |
| 20 | J. Light & Son | Lub. Gr. | 600 | ,, |
| 20 | Bancroft & Co. | Lub. | 440 | ,, |
| 21 | J. Light & Son | ,, | 2,680 | Baltimore |
| 23 | Burnaby & Chantrell | ,, | 5,160 | ,, |
| 23 | A. Hopps & Sons | ,, | 26,280 | ,, |
| 23 | Meade-King, Robinson & Co. | ,, | 10,400 | ,, |
| 23 | A. Hopps & Sons | ,, | 3,000 | N. Orleans |
| 23 | Huxley & Co. | ,, | 1,090 | New York |
| 23 | Vacuum Oil Co. | Lub. Oil and Gr. | 37,940 | ,, |
| 23 | Valvoline Oil Co. | Lub. | 20,500 | ,, |
| | Boston— | | | |
| 23 | W. F. Beaumont | ,, | 190 | Hamburg |
| | Bristol— | | | |
| 18 | H. Matthews & Co. | ,, | 480 | Antwerp |
| 19 | Pickford's | ,, | 240 | Hamburg |
| 19 | Ford & Canning | ,, | 1,200 | New York |
| 23 | C. Hill & Sons | Lub. Oil and Gr. | 6,900 | ,, |
| | Cardiff— | | | |
| 17 | Furness, Witby & Co. | Lub. | 60 | Antwerp |
| 20 | ,, ,, | Crude | 160 | ,, |
| 21 | Bristol Steam Navig. Co. | Lub. Gr. | 160 | Hamburg |
| | Grimsby— | | | |
| 17 | J. Sutcliffe & Son | Lub. | 80 | Antwerp |
| 17 | ,, | ,, | 60 | Hamburg |
| Feb. | Harwich— | | | |
| 17 | Great Eastern Railway | ,, | 240 | Antwerp |
| 17 | ,, ,, | ,, | 160 | ,, |
| 19 | ,, ,, | ,, | 280 | ,, |
| 20 | ,, ,, | ,, | 120 | ,, |
| 20 | ,, ,, | Lub. Gr. Blocks | 60 | ,, |
| | Hull— | | | |
| 18 | W. Gilyott & Co. | Lub. | 5,600 | New York |
| 19 | ,, | ,, | 38,840 | ,, |
| 19 | Wilson's & N. E. Railway | ,, | 400 | Antwerp |
| 19 | ,, ,, | ,, | 1,760 | Dunkirk |
| 23 | ,, ,, | ,, | 640 | Hamburg |
| 23 | ,, ,, | ,, | 500 | Antwerp |
| 23 | ,, ,, | ,, | 120 | Ghent |
| 23 | T. Wilson, Sons & Co. | Lub. Gr. | 70 | New York |
| 23 | ,, ,, | Lub. | 13,800 | ,, |
| | Manchester— | | | |
| 17 | Worthington & Boler | ,, | 1,400 | Philadel. |
| 17 | Anglo-American Oil Co. | ,, | 61,430 | New York |
| 17 | G. B. Taylor | ,, | 6,640 | ,, |
| 18 | Bramwell Fern & Co. | ,, | 28,000 | Philadel. |
| 18 | Diamond Lubricating Co. | ,, | 5,570 | New York |
| 18 | Meade-King, Robinson & Co. | ,, | 6,880 | Philadel. |
| 19 | ,, ,, | ,, | 200 | ,, |
| 19 | G. B. Taylor | ,, | 3,290 | ,, |
| 19 | Slatter & Co. | ,, | 240 | ,, |
| 19 | W. Howard & Sons | Lub. Gr. | 580 | New York |
| 19 | D. Currie & Co. | ,, | 180 | Hamburg |
| 20 | Anglo-American Oil Co. | Lub. | 5,380 | Philadel. |
| 20 | Bowring Petroleum Co. | Lamp | 700,000 | P. Mexico |
| 20 | Anglo-Mexican Petroleum Products Co. | Fuel | 1,357,000 | ,, |
| 20 | Bramwell, Fern & Co. | Lub. Resid | 2,730 | St. John's |
| 20 | D. Currie & Co. | Lub. | 2,700 | Hamburg |
| 21 | Liverpool Storage Co. | M. Colza | 7,640 | Philadel. |
| 21 | Crew, Levick & Co. | ,, | 1,270 | ,, |
| 21 | ,, | Lub. | 8,690 | ,, |
| 21 | F. Schofield & Co. | ,, | 7,810 | ,, |
| | Newcastle— | | | |
| 17 | Tyne-Tees Steamship Co. | ,, | 4,040 | Hamburg |
| 23 | P. H. Matthiessen & Co. | ,, | 220 | Bergen |
| | Newport— | | | |
| 19 | M. Jones & Co. | ,, | 1,280 | Hamburg |
| | Southampton— | | | |
| 18 | P. E. Curry | ,, | 250 | New York |
| | Sunderland— | | | |
| 20 | Anglo-American Oil Co. | Fuel | 435,500 | ,, |
| 21 | ,, ,, | Lamp | 275,000 | ,, |
| | Aberdeen— | | | |
| 20 | R. C. Reid & Co. | Lub. Oil and Gr. | 90 | Hamburg |
| | Glasgow— | | | |
| 17 | Clyde Shipping Co. | Lub. | 760 | Antwerp |
| 17 | Anchor Line | ,, | 48,840 | New York |
| 17 | ,, | Lub. Gr. | 400 | ,, |
| 17 | ,, | Lamp | 4,800 | ,, |
| 23 | ,, | Lub. | 45,120 | ,, |
| 23 | Clyde Shipping Co. | ,, | 1,200 | Ghent |
| | Grangemouth— | | | |
| 20 | Jas. Currie & Co. | ,, | 50 | Hamburg |
| | Leith— | | | |
| 16 | G. Gibson & Co. | ,, | 160 | Antwerp |
| 19 | ,, | ,, | 180 | ,, |
| 19 | Jas. Currie & Co. | ,, | 1,400 | Hamburg |
| 23 | ,, | ,, | 120 | ,, |
| | Granton— | | | |
| 18 | Asiatic Petroleum Co. | Benzine | 434,000 | Rotterdam |
| | Belfast— | | | |
| 17 | J. C. Pinkerton & Co. | Lub. | 150 | Hamburg |
| 19 | G. Heyn & Sons | ,, | 5,460 | N. Orleans |
| 23 | Anglo-American Oil Co. | Gas | 656,540 | Philadel. |
| | Goole— | | | |
| 17 | Goole Steamship Co. | Lub. | 90 | Hamburg |
| 17 | ,, ,, | ,, | 30 | ,, |
| | | | 9,656,020 | |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**The Institution of Petroleum Technologists.**

THE Institution of Petroleum Technologists has now started out upon its career, and if but a small percentage of the high hopes held out for it are realised, the organisation will then have far more than justified its existence. The technology of petroleum abounds in serious pitfalls, and unless those gentlemen who are called upon to fill the higher positions in the industry have sterling merit behind them, combined with a specialised course of training, then those unfortunate mistakes which have occurred in the past cannot but be again made. In this sense, therefore, the new Institution has our best wishes for a very prosperous career: it has not come before its time, for the oil industry to-day more than ever before requires highly-trained specialists, and the supply of good men hitherto has not been equal to the demand. The Institution, therefore, bridges a gap which was apparent years ago when Dr. P. Dvorkovitz founded the Petroleum Institute, and if only the high standard displayed by Sir Boverton Redwood in his presidential address is lived up to in the papers which will be presented to the members in the future, then indeed the new organisation will be a real power for good to the petroleum industry at large.

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**The Arrival of the Motor-driven Vessel.**

THE interesting trip which took place during the present week down the Thames, when an invited party accepted the invitation of Messrs. Lane & Macandrew to inspect and take a journey upon the motor-engined oil-tanker "Sebastian," speaks eloquently of the silent evolution which is taking place in regard to ocean transport propulsion. Dr. Diesel earned for himself an enviable name in the list of those master inventive minds whose genius lives after them, but it must not be forgotten that little less credit should be bestowed upon those to whose enterprise many of the most valued inventions of the present day have found practical application. Those who had the privilege of listening to the weighty words from Mr. Frederick Lane at Monday's gathering could not but feel that in the action he has taken in order to popularise the Diesel marine engine in this country, he deserves the fullest possible support. Mr. Lane has for a long time past urged the great advantage to be derived from the Diesel engine for marine transport, but he has found himself in practically the position of not being able to put his ambition into application, inasmuch as hitherto it has been impossible for very large marine Diesel engines to be constructed in this country. To-day, however, that difficulty is removed, for Mr. Lane and a few friends have found the necessary finance wherewith to build and equip an up-to-date Diesel engine manufacturing works in Scotland, and thus an impetus is given to the construction of Diesel engines in the United Kingdom which otherwise would not have been the case. Mr. Frederick Lane's spirited action is certainly worthy of the greatest commendation.

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**Roumania's Expanding Export Trade.**

WITH the announcement of the details relating to the oil export trade of Roumania during the past year, one is in a position to clearly note the significance of the present expansion. After steadily growing for several years, the export of petroleum products from Roumania last year reached a record of over one million tons, or an increase of considerably over 20 per cent. when compared with the figures for the preceding twelve months. Large, however, as the total is, there can be no doubt it would have been materially greater had it not been for the trouble in the Balkans, which restricted exports from Constantza for a few months in a remarkable degree. Nor was the expansion which so prominently stands out in last year's figures due to the prevalence of any abnormal condition of things in regard to the demand for any one product of petroleum, for the statistics show that the decidedly healthy state which permeated the export kerosene market also applied to the foreign demand for motor spirit, lubricating oil and residuals. The demand, in fact, for Roumanian residuals for liquid fuel purposes is now one of the most important branches of Roumania's export, standing but second in volume to the export of kerosene.

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**Prospective New Oil Supplies for Germany.**

THE suggested kerosene monopoly in Germany seems, for the time being at all events, to be shelved in favour of a subject which is to-day attracting widespread interest. Germany must of necessity look outside her own home territory for its oil supplies, for the German fields can supply but an insignificant quantity of the necessary petroleum products for home consumption. Therefore supplies must be sought from abroad, and in this direction it is well known how highly many members of the Reichstag favour America. Now, however, the report is made by the Government mining expert that according to indications great deposits of petroleum lie in the north-west of German New Guinea. These finds, in fact, have been of sufficient merit to warrant the formation of several large companies, which have already applied for the exclusive rights of exploitation. The obvious importance of such oil deposits for Germany's own needs is such that the Government cannot treat the matter lightly. For its navy it must have large quantities of liquid fuel if it is to keep abreast of the times, and if these can be secured under her own flag so much the better. It is doubtless these views which have had their full weight with the Government, for not only are the several companies to be refused the exclusive rights of exploitation, but the German Government itself is to immediately commence a programme of active development, for the preliminary work in connection with which a sum of £25,000 has just been voted.

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## BLACK SEA OILFIELDS, LTD.

An extraordinary general meeting of the shareholders of this company will be held next Tuesday for the purpose of obtaining the sanction of members to the sale to Kuban Refining Company, Ltd., of the company's refinery at Shirvanskaya. The proposals were fully explained at the annual general meeting, a report of which appeared in the Review in the issue of February 14th. A provisional agreement has since been prepared, which provides for the payment to this company of 430,000 roubles (£45,263). One-half of this will be received in cash, payable by instalments, and the remainder in fully-paid shares at par of the Kuban Refining Company, Ltd.

## DEATH OF MR. ALFRED SUART.

It is with deep regret that we have to chronicle the decease of Mr. Alfred Suart, of Aubrey Walk, Campden Hill, W., the sad event taking place on Thursday evening in a London nursing home.

Our deceased friend can justly be referred to as one of the pioneers in the petroleum industry, especially so far as this country's interests were associated with it. During the past thirty years Mr. Suart displayed great activity in the furtherment of his various petroleum enterprises, all of which gave a considerable impetus to the development of the petroleum industry. He was practically the first one to introduce the shipment of petroleum in bulk to England, and within a very short time was the manager and proprietor of a fleet of fourteen tank steamers. Mr. Suart was also the first to introduce Russian illuminating oil in bulk into this country, being associated with the firm of Messrs. Mantacheff & Adamoff. He also interested himself and his friends in the development of the Baku oilfields, forming the European Petroleum Company, Ltd., on May 14th, 1896, the first English company to operate in the Baku fields. He was afterwards associated with the pioneer company operating in the Grosny oilfields—the Akhverdoff Company.

As is the case with all pioneers he had to fight his way at considerable cost, and there is no doubt that the failure of some of his enterprises seriously affected his health.

There is scarcely any branch of the industry, whether in the application of petroleum or the new methods of winning and refining products, which escaped his notice, for to any and every question concerning the industry he gave his most cordial support and attention.

In the decease of Mr. Alfred Suart the petroleum industry of this country has lost one of its most staunch supporters.

The funeral of the deceased gentleman will take place on Wednesday, at 3 o'clock, at Chigwell. The train leaves Liverpool Street at 2·15 p.m.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended February 28th was 124,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended March 1st was 289,575 poods, or about 4,671 tons. The total production for the year from January 14th to March 1st was 1,966,200 poods, or about 31,713 tons. The total production for the corresponding period last year was 1,810,375 poods, or about 29,200 tons. Price of crude oil at Baku is now 40½ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended February 28th was 30,271 poods, or 488 tons.

European Oilfields Corporation, Ltd. — The production for the week ended March 1st was 34,000 poods, or 548 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended February 28th was 129,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended February 28th was 21,266 poods (343 tons).

Maikop New Producers, Ltd.—Production for week ended February 28th was 6,900 poods (111 tons).

British Maikop Oil Company, Ltd.— Production for week ended March 1st was 13,508 poods, or 218 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended February 28th, 91,500 poods, or 1,476 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended March 3rd was 494,214 poods, or 7,971 tons. Corresponding period last year, 1,572 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended March 1st was 87,267 poods, or 1,408 tons.

Maikop Midland.—Production at Krimskaya for week ended February 28th was 4,200 poods, or 68 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended February 28th was 24,388 poods (393 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended February 22nd was 1,625 poods (27 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended February 28th was 5,750 poods, or 93 tons.

Cheleken Oilfields, Ltd.—Production for fortnight ended February 28th was 1,766¼ tons.

**GERHARD & HEY,**
**OILFIELDS SHIPPING AGENTS,**
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
LONDON, E.C.

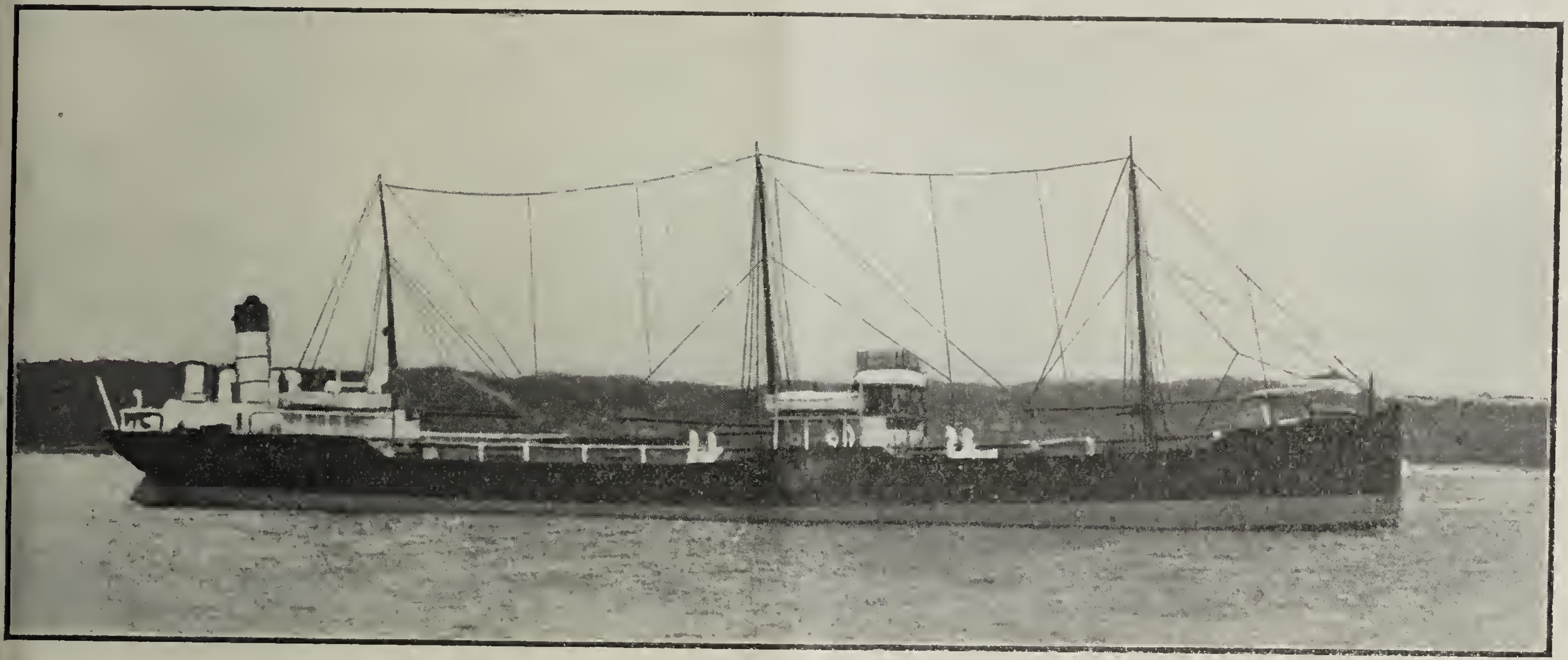
# THE DIESEL-ENGINED TANKER "SEBASTIAN."

## INTERESTING TRIP DOWN THE THAMES.

On Monday last, at the invitation of Messrs. Lane & Macandrew, the managers to the Sebastian Diesel Motor Boat Company, Ltd., a party of guests made an inspection of the new motor oil-tanker "Sebastian" as she lay fresh from her trials at the oil wharf at Gallions, Royal Albert Dock, E., and afterwards had the pleasure of taking a very pleasant trip down the Thames upon the new tanker.

The party on board was representative of many of the associated branches of the petroleum trade, and the great interest taken in the motor vessel may be gathered by a perusal of the list of the gentlemen who were included in the party. Mr. Frederick Lane, Mr. Harry Lane, Mr. Graham Lane and Mr. R. Macandrew represented the owners of the "Sebastian," Mr. William Roper was present on behalf of the builders of the vessel—the Caledon Shipbuilding and Engineering Company, Ltd., of Dundee—while Mr. R. M. Campbell, M.I.Mech.E., represented the makers of the engines—the A.B. Diesels Motorer, of Stockholm. Amongst the arge party on board, our representative also noticed Captain Davies, marine superintendent for Messrs. Lane & Macandrew, Captain Scott (nautical adviser to the Anglo-Saxon Petroleum Company, Ltd.), Mr. Mark Abrahams (Anglo-Saxon Petroleum Company, Ltd.), Captain Tucker (Anglo-Mexican Petroleum Products Company, Ltd.), Messrs. S. Smith and Bousson (repreenting Lord Cowdray), Sir Fortescue Flannery (Messrs. Flannery, Baggalay & Johnson), Mr. D. Milton (chief engineering surveyor to Lloyd's), Mr. John Ferguson Messrs. Barclay, Curle & Co.), Mr. Zulver (marine uperintendent to the Anglo-Saxon Petroleum Company, Ltd.), Captain von Muller, Baron W. von Offenheim, Dr. Menzel (Krupp Company, Kiel), Mr. A. . Heriot (Paris), Mr. H. Doerweldt, Mr. Charles E. Nicholson (Messrs. Camper & Nicholson, Ltd., Gosport and Southampton), Mr. C. N. Boyn, Mr. F. Blake, Mr. C. Randolph Smith (manager of the North British Diesel Engine Company, Ltd.), Captain Young, Captain D. J. Davies (of the "Arum"), Mr. Horace Kent (chief officer of the "Arum"), Mr. S. C. P. Cooper (manager of the Flower Motor Ship Company), and Lieut. Hawkes (Royal Commission on Oil Fuel).

The "Sebastian" has a deadweight capacity of 4,500 tons, and her Diesel engines aggregate 1,600 shaft h.p. She is 310 ft. long by 45 ft. breadth and 26 ft. 3 ins. in depth, and when fully laden can cover 11¼ knots per hour without her engines being pressed to their maximum power.



The Motor Ship "Sebastian."

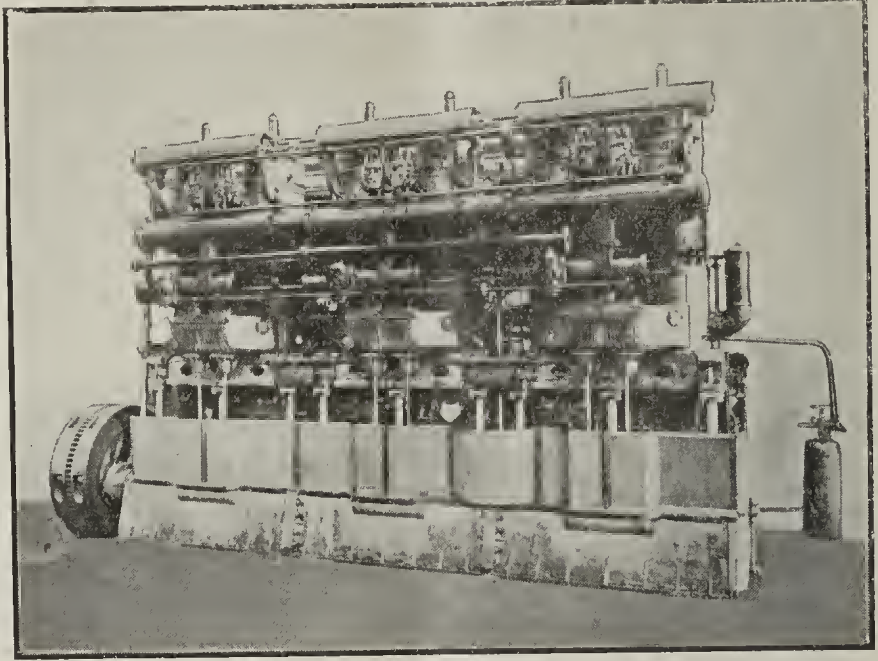
Both the main engines have six cylinders of 16 in. diameter and 22½ in. stroke, and develop 800 h.p. at 165 revolutions per minute, consuming 7½ tons of oil per day. The engines are of the open type and drive their own compressors by rocking levers from the crossheads. Unlike in most Diesel engines, the manœuvring is carried out by the action of air admitted to separate cylinders directly under the main cylinders, the very important advantage being obtained that the walls of the working cylinders are not subjected to the extremes of heat and chill. The engines take up their work very rapidly owing to this reason and notwithstanding that the valve gear is so designed that no excessive charge can at any time enter the combustion chamber—this latter feature of the engine is unique.

The process of working follows the two-stroke cycle, each downward movement of the piston being a power stroke. At the bottom of each stroke the spent gases escape through ports in the cylinder wall, and fresh air is admitted at a low pressure through opposed ports to scavenge the cylinder thoroughly. During the normal running of the engines the manœuvring cylinders have no other duty than to supply the air for scavenging.

The vessel had very successful trials a few days ago, when the contract speed was easily exceeded with the engines running at 125 revolutions upon Scotch distillate, and on her journey down the coast from Dundee to London, running on the same fuel, the consumption per twenty-four hours' day was only $3\frac{5}{8}$ tons. It is intended during the first six months' running to depend solely upon solar distillate for power purposes, at the end of which time Roumanian residuals will be used. The "Sebastian" is intended to regularly trade between America and Spain, but on her first trip, which commenced last Tuesday, she went to Novorossisk, and will return to Rouen with a full oil cargo.

The building of the "Sebastian" is the outcome of Mr. Fred Lane's strong advocacy of the great advantages to be gained by the adoption of the Diesel engine, and in order to be in a position to engine future vessels in this country, Mr. Lane and several associates have privately subscribed the whole of the necessary capital for the erection of up-to-date engine works on the Clyde. As a matter of fact these works are already in course of construction, and it is expected that the manufacture of marine Diesel engines will be commenced there during the present year. The company (the North British Diesel Engine Company) has a capital of £1,000,000 sterling.

Mr. Lane expressed to our representative his entire satisfaction at the running of the engines during Monday's demonstration, and mentioned that he intends to build Diesel-engined boats in the future with up to 24,000 horse power. The general behaviour of the engines was indeed remarkable, and from first to last there was an entire absence of that vibration which is ever present in steam-propelled craft.


View of one of the Diesel Engines.

While the trip was in progress *déjeuner* was served to the company in the tastefully decorated saloon amidships, Mr. Fred Lane presiding.

In a neat and pointed speech, Mr. Lane thanked the guests in the name of the Sebastian Motor Boat Company for having accepted the invitation to inspect the "Sebastian," and proceeded to heartily congratulate the shipbuilders and the engine-builders for the splendid work put into the vessel. The engine-builders had had a very difficult task, for the engines in the "Sebastian" were the largest the firm had built up to the present time, yet they had accomplished it most successfully. The amount of care and attention which had been bestowed by them on the engines had been such as to warrant the owners to suppose that they had the most satisfactory set of marine Diesel engines which had ever been put into a vessel. The engines had had a great deal of testing during the past year or so; in fact, they had been tested to an almost unlimited extent, yet through all the tests they had come out most successfully. The design of the engines on the two-cycle single-acting type was, he believed, the design for the future, and much as several engine-builders differed to-day as to what was the best design, he thought in the long run it would be universally admitted that the two-cycle standard was the most successful. The builders of the vessel had also had an extremely difficult task, inasmuch as the engines had to be built abroad; in fact, very few shipbuilders would have undertaken the contract, for it had necessitated the exercise of a great amount of care and labour which had not been warranted from the monetary point of view. When the owners gave out the contract for the building of the "Sebastian," they contemplated having a ship which would have a speed of ten knots per hour upon a consumption of something like eight tons of distillate per day. As a matter of fact, they had a vessel which would easily cover $10\frac{1}{2}$ knots with a consumption of about $6\frac{1}{2}$ tons of oil per day. That of course was an enonmous advantage, for instead of having their engines running at 165 revolutions, which was extremely inconvenient for marine purposes, they had such enormous power that they could reduce the speed of the engine to 115 revolutions per minute, which was most convenient, as it enabled them to avoid difficulties which would be otherwise present. It was to be regretted that Dr. Diesel had died before he had seen the splendid success of the engine which was associated with his name. The speaker regarded it that the steam engine had almost arrived at perfection, for he did not think the modifications of the future would be great, but on the other hand he looked upon the Diesel engine as entirely in its infancy. He was convinced that in the future the devolpments would be so great as to astonish them, and the lines upon which improvements would take place would be in the direction of enabling concentration of power and in the limiting of weight and space. With steam on the one hand and the internal combustion engine on the other, there would in the future be no comparison necessary, because the matter of fuel would play no rôle whatever in the numerous advantages to be derived from the adoption of the Diesel engine for marine purposes. It was in that faith that he had, in conjunction with Messrs. Swan Hunter and Wigham, Richardson, Ltd., and Messrs. Barclay and Curle, constructed works on the Clyde for the purposes of manufacturing Diesel engines, for he was certain that, for the economical and effective construction of Diesel engines, works of a different character were absolutely necessary to those existing for the manufacture of steam engines. He was convinced that the Diesel engine would be the engine of the future and would to a very great extent displace steam for marine purposes.

There was only another word or two to say before he sat down, and that was in reference to the supplies of fuel for the Diesel engine in the future. He had been in the oil business for thirty years, and had been associated with practically every oil-producing field in the world, and he was of opinion that the oil industry was something like the Diesel engine—it was in its infancy to-day. The developments in the oilfields of the world in the future would be so enormous that one needed not to have the slightest hesitation in concluding that no matter how the popularity of the Diesel engine might increase, adequate supplies of oil would always be found.

Mr. Lane then concluded by proposing the healths of the engine builders, the constructors of the vessel, and of Messrs. Flannery, Bagallay & Johnson, for Sir Fortescue Flannery, on behalf of that firm, had given a great amount of attention to the details of the "Sebastian," with the result that they had a vessel of which they were well proud.

The toast having been heartily received,

Mr. R. M. Campbell, representing the engine builders briefly responded, mentioning that he had hoped to have had one of the principals of his firm over from Stockholm present that day. He was delighted with the behaviour of the engines, and trusted that throughout a long career they would give the same satisfaction as they had done that day. At the present moment his firm were simply overwhelmed with orders for Diesel engines, and he was convinced that for engines of large power, the two-cycle motor, such as they had upon that vessel, would be the favourite design of the future.

Mr. Roper (on behalf of the builders of the vessel) briefly replied, after which,

Sir Fortescue Flannery (Messrs. Flannery, Bagallay & Johnson) said how proud his firm were to have been associated with the building of the "Sebastian." That vessel was one of the first vessels to be actually completed in Great Britain upon the Diesel principle. So far it was, of course, too soon to speak of the actual results of the engines, but from what they had done during their long trials and on the run from Dundee to the Thames, he believed they would be found to be exceptionally satisfactory. The remarkable quickness with which the engines could be stopped, started, or reversed was something he had never seen excelled and he believed never could be excelled in machinery of the weight and power of that on board the "Sebastian." He trusted there would be a successful career in front of the vessel, and he asked the company to drink to the continued success of Messrs. Lane & Macandrew.

The toast was received with enthusiasm, and Mr. Lane responded.

## LAUNCH OF THE M.V. "ELBRUS."

On Thursday, the 26th ult., there was launched from the yard of the Tyne Iron Shipbuilding Company, Ltd., Willington Quay-on-Tyne, a twin-screw motor vessel, built to the order of the Société d'Armement d'Industrie et de Commerce, of Antwerp.

The vessel is built to the highest class at Lloyd's, and is of the following dimensions:—Length overall, 390 ft.; breadth, extreme, 51 ft. 3 in.; depth, 29 ft.; and designed to carry nearly 7,000 tons deadweight on Lloyd's summer draught.

The vessel, which has been built for the purpose of carrying petroleum and other oils in bulk, is fitted with a very complete oil-pumping installation, including oil pumps of large size for working against a heavy back pressure, and a separate system of pipes and pumps for dealing with water only, so as to avoid the possibility of mixing with oil, and is also fitted with a complete system of steam heating coils and fire-extinguishing steaming-out arrangements in each oil tank and each oil-fuel bunker.

The accommodation, which is much superior to the ordinary class vessel, has been carried out to the special requirements of the owners, and includes a complete system of steam heating, electric light, voice pipes, and bells, the saloon and captain's room being furnished with E.P. fittings, the officers', engineers', and crews' accommodation being of high-class finish, and the crew having special washhouses with baths and showers. The main engines are two six-cylinder Werkspoor marine Diesel motors, of their usual four-cycle single-acting type, the diameter of the cylinder being 560 mm., the stroke 1,000 mm., the speed 125 r.p.m., and the output 2,200 b.h.p. (which will give a speed of 11½ knots when fully loaded), supplied by the Nederlandsche Fabriek van Wertuigen en Spoorwegmaterieel, of Amsterdam. Two large high-pressure boilers are being installed in the engine room and arranged for liquid-fuel firing—one for driving the auxiliaries in engine room, and the other the oil and ballast pumps and deck machinery, including winches, capstan, electric light engine, and steam steering gear.

Even the galley cooking range is heated by oil instead of coal, so that no coal whatever will be carried on the ship.

A first-class wireless installation is being fitted, on the latest improved system with wide circuit. The steering gear, of Donkin's make, is actuated by a McTaggart Scott telemotor control. On leaving the ways the vessel was named "Elbrus" by Miss Henriette Muller, of Antwerp.

During construction the vessel and machinery have been under the inspection of Capt. J. C. F. Muller, the marine superintendent for the owners. It is interesting to note that the North-Eastern Marine Engineering Company, Ltd., of Wallsend, have constructed and sent to Amsterdam the bedplate, columns, and cylinders for the main motor machinery. After the launch the vessel was taken to the works of the company to receive her donkey boilers and air compressors, and will ultimately be towed to Amsterdam to receive her motor machinery.

## TRINIDAD'S PETROLEUM INDUSTRY.

In connection with the forthcoming International Oil Exhibition in London, the West India Committee are arranging for the display of moving pictures illustrating the oil industry of Trinidad, which have been lent to them by the Trinidad Lake Petroleum Company, Ltd. A Government exhibit is being prepared with the object of calling attention to Trinidad as a source of oil supply. From 7,685,374 gallons of crude oil in 1911, when the first shipment was made, the shipments rose last year to 13,570,152 gallons. The exports of asphalt also show a notable increase, the total last year amounting to 208,164 tons, as compared with 176,077 tons in the preceding year, and 169,027 in 1911.

## IMPORTANT NEW ZEALAND OIL STRIKES.

The Review learns from official sources that oil was struck in two wells in the New Plymouth field (N.Z.) on Thursday. A cable received at the London office of the Taranaki (N.Z.) Oil Wells, Ltd., read:—"Struck an enormous flow of natural gas, rotary drill, to-day. Lasted many hours. Splendid show of oil. Telegraph fully on Friday." This well has reached oil at about 2,250 ft.

A cable was also received concerning a strike of oil in the well of the Phœnix Oil Company. It read:—"Struck oil to-day in Phœnix. Will strike in six weeks United. Prospects excellent. Blenheim again giving oil."

The Blenheim well was temporarily corked, and the cable shows that there has been a resumption of the flow. The United well, referred to in the cable, is some three miles distant from the two wells which are now reported to have gone into oil, and all of the three are close to the new refinery of the Taranaki (N.Z.) Oil Wells, Ltd.

# RUSSIAN AND ROUMANIAN NOTES.

## RUSSIAN.

**Black Sea Oilfields.**—The Military Council has granted to the Black Sea Oilfields another two years for the completion of exploration works in the Maikop district on four otvods.

**State Petroleum Exploitation.**—The Ministry of Communication and Trade and Industry intend exploiting the State petroliferous properties situated at Sel-Rokh and the Kokhan in the Ferghana province, where exceedingly rich petroleum deposits exist.

**Strike in the Emba District.**—A strike of workers employed in the Emba district by the companies Emba, Emba Caspian, and two other Emba companies, took place during the last month, but only lasted seven days, as the producers granted all the demands of the strikers.

**Lease of Petroliferous Plots in the Kuban Province.**—The Administration of the Kuban Province announces that two plots of 10 dessiatines each, situated at Blagonetchensk, in the Termand district, are now open for a lease of 24 years at the price of 150 roubles per dessiatine, for exploitation of petroleum, kir, etc.

**New Lease of Kuban Petroliferous Terrains.**—The Kuban Administration has fixed July 9th next as the date for auction leases of petroliferous plots in the Kuban Province—viz., four plots at Staro-Titarovosk and one plot at Taman. The terms of the lease will be twenty-four years, 150 roubles per dessiatine, and 1 copec royalty per pood.

**Russian Government's Profits from the Petroleum Industry.**—The Budget for 1914 estimates the total income of the Government from the petroleum industry to the amount of 33,775,324 roubles, including 17,500,000 roubles to be obtained from the exploitation of State petroliferous lands, 2,330,159 roubles from the per pood tax, and 13,945,165 roubles from leases.

**The Petroleum Industry in the Terski Province.**—The petroleum fever around Vladikavkas shows no signs of abating, notwithstanding the fact that the whole of the territory of the Terski province is practically covered with zaiavki. During the last year the administration of the property has received 18,433 demands for zaiavki, of which 12,873 were declined, and only 815 otvods were granted.

**Amalgamation of Kerosene Firms.**—The firms, Ocean, Merkulieff Bros., Caspian Society, Mantaschaff, Nafta Society, and others have united into a company under the name of Volga-Black Sea Company, in order to fight the amalgamation of Nobel Bros. and Mazout Company on the kerosene market. At Zarizin the new company has taken possession of the stores of the Nafta Society, consisting of 24 reservoirs, of a capacity of 2,660,000 poods, and 140 tank waggons.

**Petroleum at Turkestan.**—At Sel-Rokho the Central Asiatic Petroleum Society, Santo, now obtains from its wells 3,500 poods of petroleum. The company energetically continues its borings, and has commenced the erection of a refinery calculated for 2,000,000 poods of kerosene a year, and this will be opened during next summer. Besides Santo, the Russian Nafta Petroleum Society has also started extensive boring. There are rumours that the State also intends to bore.

**Boring Activity in the Terski Province.**—In the Vosnesesisk district the Kolkhida Company has erected two derricks, and intends erecting a pipeline to Mozdok. The same company is erecting a derrick at Nogai and is boring two wells at Datikh. On Belik's land boring has been started by Mukhtaroff. The Akverdoff Company has reached a depth of 1,890 ft. at Bratchin. About 300 dessiatines of petroliferous plots have been granted by the Administration of the province to the Vladikavkas Railway.

**The Schibaieff Company.**—In view of the complete resumption of the business of the society of "Russian Mineral Oils and other Chemical Products, S. M. Schibaieff & Co.," the Moscow Commercial Tribunal, has annulled the administration for the business of this company. The operating year 1912-13 has been closed with a balance of 16,000,000 roubles, arrived at by means of the capital of 6,500,000 roubles. The net profit amounts to 472,000 roubles, which is all transferred to the working capital.

**Measures to Reduce Prices of Petroleum.**—The Ministry of Trade and Industry is elaborating a series of measures in order to reduce the prices of crude oil, one of which is the fixing of new auction sales of petroliferous plots for next May. For the same purpose State petroliferous lands will be exploited by the Ministry of Ways and Communication with the hope of obtaining a yearly production of from 20,000,000 to 25,000,000 poods. Besides the 21 new petroliferous plots already leased in the Baku and other districts, 29 additional plots will soon be open for lease. New explorations will also be undertaken.

## ROUMANIAN.

**Romana-Americana.**—The total production of this company amounts to 1,220 tons a day, of which 1,170 tons are obtained at Moreni, 20 tons at Bushtenari-Gropi, 20 tons at Baicoi and 10 tons at Tetzcani.

**New Boring Enterprise.**—A new enterprise is being formed by Mr. Winter, the former manager of the Alliance Petroleum Company. The new company will have a capital of 500,000 francs, fully subscribed.

**The Deutsche Petroleum A.G.**—This German company, which participates in the Steaua-Romana, shows a dividend of 8 per cent for the closed year on its capital of 20,000,000 marks. It is intended to increase this latter to 35,000,000 marks.

**Exportation.**—Exportation is very active, as since the middle of last month the administration of railways is circulating six trains a day to Constantza, but owing to the great accumulation of stocks, this is not yet sufficient, and one or two more additional trains will have to be added

**Prices.**—The prices of crude oil are well maintained, as the demands considerably surpass the offers. Prices of products on the interior market also maintain their favourable level of last week. Negotiations between consumers and refiners as regards fixing the prices of this product still continue.

**The Steaua-Romana.**—The average daily production of this company during the past week amounted to 952 tons, of which 415 tons were obtained at Campina and 308 tons at Policiori. Regular eruptions were obtained in the well No. 246 Runcu and intermittent eruptions in four other wells.

**Production.**—The general production still maintains a level of 5,000 tons per day. It is just at the present moment that the influence caused by the interruption in the boring works during July and August is being felt, and a considerable number of wells, the boring of which would ordinarily have been now completed, will enter into production considerably later.

**Well No. 28 Astra-Romana.**—Well No. 28 of the Astra-Romana, situated to the north-west of the Bana district, has struck oil at a depth of 407 metres. The oil obtained is of a dark greenish colour and of specific gravity 0.826. This successful strike has induced the company to start boring well No. 37, situated more to the north, in order to extend the exploration area.

**The Astra-Romana.**—The production of this company during the past week averaged 1,154 tons a day, of which 899 tons were obtained at Stavropoleos, 141 tons at Bana, 42 tons at Campina, 77 tons at Filipesti, and the rest at Baicoi and Glodeni. Well No. 6 at Filipesti has been cleaned, and now gives by regular eruptions 200 tons a day. The company has also struck oil in the wells 28 and 35 at Bana.

**Roumanian Consolidated Oilfields.**—This company has struck a petroliferous stratum in its well No. 30 at a depth of 740 metres. The well is situated at the south-west end of the Bana district at a distance of about a kilometre from the actual exploitations in this district. If the new stratum gives a remunerative production, the strike will be of great importance, as it means a vast extension of the Bana field.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 13/9-14/9 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-$1\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/9-6/3 |
| Bibi-Eibat Oil Co. ... ... | 250.000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319.181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 32/9-33/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 37/6-38/0 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 22/3-23/3 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/9-4/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}$-$1\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{32}$-$5\frac{3}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{9}{16}$-$10\frac{13}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 21/3—21/9xr |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Latest Quotations. Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 717 | 719 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,150 | 3,175 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 277 | 280 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,250 | 19,350 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,008 | 1,010 |
| Russian Naphtha Society ... ... | 100 | 256 | 258 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 405 | 408 |
| Lianosoff & Co. ... ... ... ... | 100 | 241 | 243 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co ... ... ... | — | 395 | 400 |

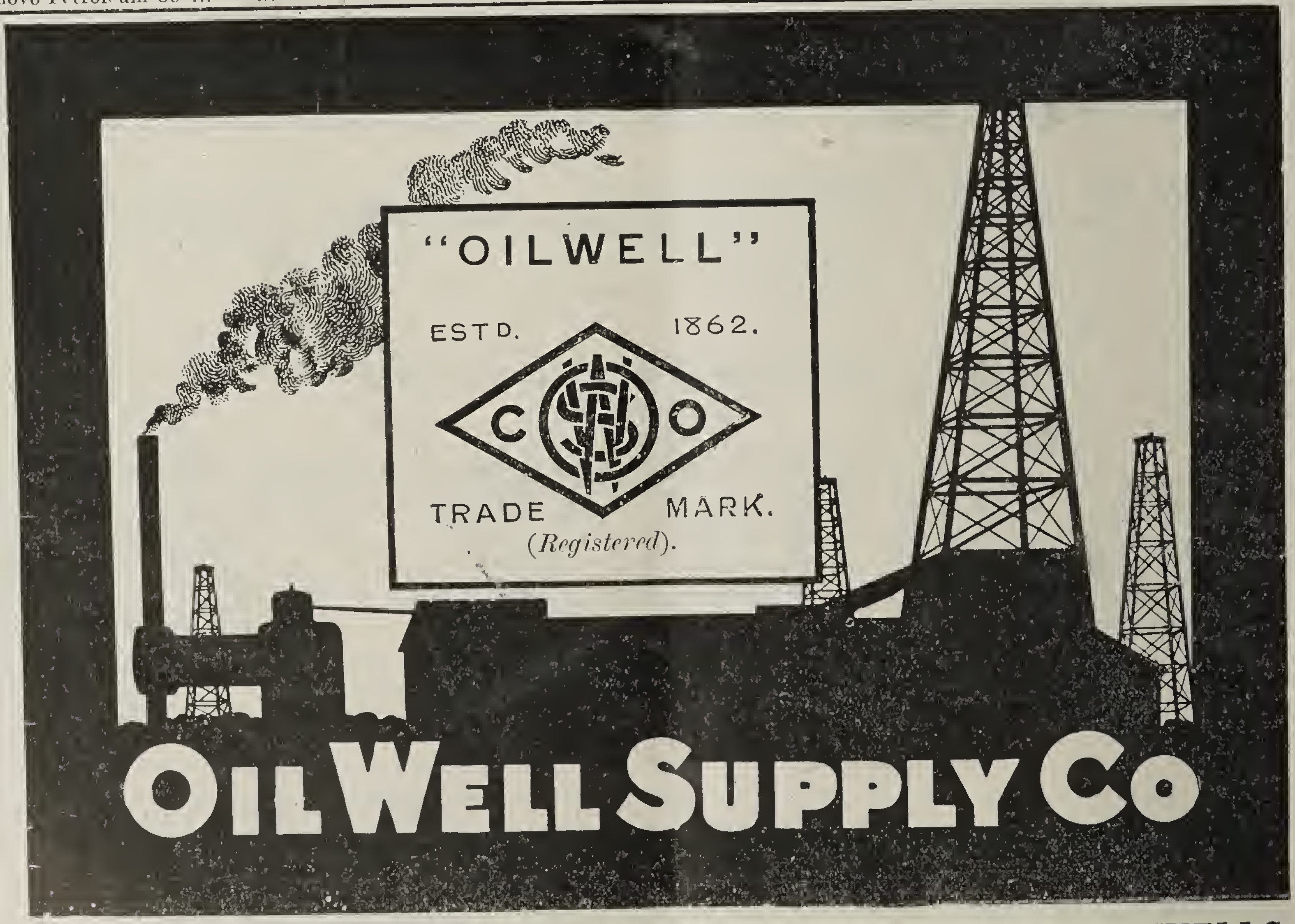
## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 34/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 87/9 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | $8/10\frac{1}{2}$ |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 41/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 36/0 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{5}{16}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 69/6 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, March 7th, 1914.

## THE STANDARD OIL COMPANY IN CHINA.

The Review to-day is in a position to give a number of interesting details relative to the announcement made in the daily press a few days ago to the effect that the Standard Oil Company had entered into an arrangement with the Chinese Government, the effect of which would be for a thorough and systematic development of the oil regions of the Celestial Empire.

We are only repeating what is common knowledge when we say that though the potentialities of the petroleum deposits of China have been known from the most remote ages, there has not been any really serious attempt to commercially develop them, though during the past few years in some localities the introduction of improved methods of boring have tended to increase the crude oil output. The fact, however, remains—strange as it may seem in this era of commercial advancement and industrial development—that though oil-wells have existed in Echigo and the neighbourhood for several hundred years, and though there is every reason to believe that China possesses petroliferous regions of the first order, so far the crude oil industry of the Celestial Empire is confined to very insignificant limits.

The advent of the Standard Oil Company, however, is bound to have a most marked effect upon China's progress in the near future, and in this respect alone the subject at once becomes intensely interesting to the oil man. The arrangement between the Chinese Government on the one hand and the Standard Oil Company on the other may be regarded not only of momentous significance but of vital importance ; it is, in fact, practically a partnership with advantages of mutual interest.

From the details now in our possession it appears that the preliminary negotiations involved the loan of $15,000,000 to the Chinese Government in return for a concession to the Standard of the prospective oilfields, but as this proposal was not in accordance with the company's methods of developing its foreign trade, it was rejected and in its place the plan of organising an American-Chinese company was consummated, wherby the Government was to receive 37½ per cent. of the stock of the new company with the right to purchase further holdings to the extent of 7½ per cent. within two years. The agreement also includes the right to construct pipelines and railways for the devolopment of the fields and the refinement and marketing of the product.

Mr. W. E. Bemis, vice-pesident of the Standard Oil Company, of New York, through whose negotiations the arrangement has been consummated, has announced that it is a source of much gratification to know that the oil resources of China are to be developed under such favourable terms. It was well known that oil deposits abound and it was only a matter of prospecting until their possibilities are determined. Geologists and oil experts have been in the country for some time, and upon the receipt of their reports, operations will be prosecuted. Mr. Bemis estimates that an expenditure of between $6,000,000 and $10,000,000 would be necessary for the proper development of the resources. Summing up the progress which the Standard Oil Company has made in China during the past decade, Mr. Bemis has pointed out to a representative of our contemporary, the *Oil Paint and Drug Reporter*, that the Standard Oil Company of New York have invested $20,000,000 in China since 1903, and in the ten years since that date have placed their products in out-of-the way corners of the kingdom where oil was never known before. And it was done by their own agents. Previous to 1913 the company dealt through the established commercial houses in seaport cities, and were one of the very first foreign organisations to set out to distribute their own products. Since 1906 they have done $100,000,000 worth of business with Chinese merchants, great and small, and with their own Chinese distributors, and in that time have met a loss of 634 taels all told, a matter of something like $440.

The increase of the use of kerosene in China has trebled the output of the silk industry in the past seven years. The direct cause of this great increase was a lamp the Standard made—an ordinary kerosene lamp with a burning capacity of eleven hours at one filling, which they designed and sold for 7½ cents, sometimes making deliveries 3,000 miles in the interior. Previous to the introduction of this lamp in some of the interior parts of the silk-raising territories work had to be confined to the hours when the sun shone brightly. Even in places where they had oil they could not use it to advantage because of antiquated lamps in use. In the first year their special lamp was sent across the sea 875,000 were sold. Since that time annual sales have aggregated 2,000,000, and 'the company manufacturieg them has been worked to full capacity to supply the demand.

The use of a modern lamp naturally increased the call for the Standard's product. In 1903 some 3,500,000 cases of oil were sold by the Standard Oil Company of New York in the northern provinces ; last year sales totalled something over 9,000,000 cases.

It is, therefore, clear that now the arrangements have concluded whereby the Standard is to commence systematic development of China's oil resources, the Empire's industrial progress will receive a marked impetus, such as possibly could not have been brought about in other circumstances. In the past, the Standard has carried out a remarkable distributive oil programme in China, and we doubt not that it is the success which has attended the working of such a bold scheme that has been the primary reason for the present close and friendly relations which exist between the Government of China and the Standard Oil Company.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MARCH 2nd, 1914.

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IN GALLONS.

| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | From Jan. 1. | Since Feb. 23. | Fro Jan. |
| Belgium .. | — | — | 9,270 | 108,230 | — | — | — | — | — | 32,220 | — | — | — | 680 | 9,270 | 14 |
| Canada .. | — | — | — | 4,400 | — | 18,380 | — | — | — | — | — | — | — | — | — | 2 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 7,107,800 | — | — | — | — | — | 7,10 |
| Germany .. | — | 25,050 | 21,040 | 548,300 | — | — | — | — | — | — | — | — | — | — | 21,040 | 57 |
| Holland .. | — | — | — | 2,680 | — | — | — | 55,000 | — | 1,537,780 | — | — | — | 590 | — | 1,59 |
| Mexico .. | — | 2,238,130 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,580,450 | — | — | — | 5,58 |
| Roumania .. | 39,170 | 1,997,790 | — | — | — | 875,000 | — | — | — | 983,380 | — | 1,207,910 | — | — | 39,170 | 5,06 |
| Russia . | — | 1,502,000 | 2,750 | 635,660 | — | — | — | — | — | 3,202,880 | — | — | — | — | 2,750 | 5,34 |
| U.S.A. .. | 2,249,680 | 21,664,430 | 260,710 | 8,073,700 | — | 13,480 | 1,069,090 | 15,991,610 | — | 1,211,600 | — | 1,763,870 | — | 112,990 | 3,579,480 | 48,83 |
| Other Countries | — | — | 6,120 | 57,980 | — | — | — | — | — | — | — | 1,030 | — | — | 6,120 | 5 |
| | 2,288,850 | 27,427,400 | 299,890 | 9,412,750 | — | 906,860 | 1,069,090 | 16,046,610 | — | 14,829,830 | — | 5,553,260 | — | 114,260 | 3,657,830 | 74,32 |

# INSTITUTION OF PETROLEUM TECHNOLOGISTS.

## INAUGURAL MEETING.

### PRESIDENTIAL ADDRESS by Sir BOVERTON REDWOOD, Bart.

On Tuesday evening, at the House of the Royal ciety of Arts, Adelphi, W.C., the Institution of troleum Technologists held its inaugural meeting, e President (Sir Boverton Redwood, Bart., D.Sc., R.S.E.) presiding over a very large attendance of embers and visitors.

Sir Boverton, in opening the proceedings, expressed s personal pleasure at such a large attendance of embers of the Council of the Institution, but regretted at there were two gentlemen who unfortunately were able to be present. He referred to Sir Thomas wring, who was necessarily absent owing to illness, d Mr. A. Eastlake, who was in Russia. That day r. Eastlake had cabled from Baku : "Wish Institution ery success ; regret absence."

The Chairman then proceeded to deliver his presintial address. He said it was a good omen that the stitution of Petroleum Technologists should be rmitted to hold its inaugural meeting in the House the Society of Arts, for, as his friend Sir Henry ueman Wood had recently reminded them in his mirable history of the Royal Society of Arts, that ciety, which was founded in 1754, had assisted at e birth of many flourishing institutions of a similar aracter. Thus, the Chemical Society, whose rooms re now in Burlington House, was founded at a eeting which was held in the Society of Arts' House 1841, and for some years, at any rate, the society met ere periodically. The scope of the Society of Arts s for many years very wide, and it was instrumental the dissemination of information concerning the lustrial arts and sciences in general as well as being e recognised channel of publication of new disveries and inventions of an industrial character.

But before long, however, it had to contend with the npetition of many other similar institutions the mand for which naturally arose from the growth of ecialism, and in that way by the end of the first half the ninteenth century there had been founded the yal Acadamy, the Linnean, Geological, Chemical, ricultural and Geographical Societies, the Royal Instiion, the London Institution, the Institution of Civil gineers and of British Architects all occupying ound once left to the Royal Society and the Society Arts.

The Society of Arts having been founded as early as 54, there still remained work for it in the domain of lustrial chemistry, and in 1874 a special chemical tion of the Society was formed to deal with work of t character, but that section came to an end in 1886, Institute of Chemistry and the Society of emical Industry having meanwhile been formed, former in 1877 and the latter in 1881. With nmendable self-sacrifice the Society of Arts had in ery instance made way for and encouraged those w comers and given as they had seen facilities for ir creation by no longer affording facilities for the discussion of subjects which those new Societies were specially created to deal with. Further evidence of that generous attitude was seen from the fact that their Institution was assembled in that house that evening for its inaugural meeting, because from time to time there had been valuable papers and lectures given before the Society of Arts upon subjects which lay within the province of the new Institution of Petroleum Technologists, in addition to a course of Cantor lectures on petroleum delivered in 1886, which modesty precluded his placing in the category of valuable communications. It was evident, therefore, that the Society of Arts in their policy of encouraging the formation of new societies had to a large extent debarred themselves from receiving communications which were of special interest to their members. It was not, however, so much with the idea of providing a new channel for the diffusion of knowledge upon matters relating to petroleum, still less of providing a new arena for the contests of mental gladiators on controversial matters that the Institution of Petroleum Technologists had been founded.

They wanted to do something which no other society or institution could give them. They wanted to establish a "hall-mark" of proficiency in connection with their profession, and he thought it would be generally conceded that their action in that direction had not been taken too soon. (Applause.) As he had recently pointed out elsewhere, the great development of the petroleum industry, and especially the multiplication of centres of activity in petroleum exploration where British capital had been embarked in that industry had rendered it increasingly difficult to procure the services of properly trained geologists, engineers and chemists, with the result that positions of responsibility were given either to incompetent Britishers or to competent men of other nationalities, either alternative, of course, being greatly to be regretted from their point of view. Moreover, in the absence of any means of gauging the capacity of those who proferred advice, whether in the form of technical reports or otherwise, capitalists were often induced to give credence to untrustworthy statements and were led astray, money being thus wasted and discouragement created. (Applause.)

The aim of that Institution as defined in their constitution was (*a*) to enable technologists engaged in the petroleum or shale-oil industry to meet and to correspond and to accumulate trustworthy information regarding the occurrence and production of the winning of petroleum or oil-shale, the conversion of the raw materials into manufactured products, and the characters and uses of those products, together with their transport and storage ; and (*b*) to promote the better education of persons desirous of becoming professional consulting petroleum technologists, petroleum engineers, geologists or chemists, and to elevate the professional status of those employed in the petroleum industry by setting up a high standard of scientific and practical proficiency, and by insisting upon the observance of strict rules in regard to professional conduct.

In pursuance of the policy he had outlined, it would be the general aim of the Institution to do everything which lay in its power to advance the welfare and safeguard the interests of those who qualified themselves for the profession of petroleum technologists, and in that manner the Institution would strive also to be of service individually and collectively to the industry.

There was no need for him—Sir Boverton—in those days to dilate upon the importance of petroleum ; they could scarcely take up any newspaper without having that fact impressed upon them; nor could they pass through their crowded streets without realising to what a great extent petroleum had entered into matters connected with their daily life. In the membership of their Institution they would aim rather at high qualifications than at numerical strength, and they hoped that the time was not far distant when those who were seeking assistance in carrying out petroleum enterprises would naturally turn to the Institution's register of members for guidance in the selection of men to co-operate with them. The Institution was so constituted that it might happen that some of the members might at times find themselves in the position of employers and employed, but among themselves they would recognise no such distinction. They would meet on common ground with the common object of co-operating in advancing the interests of all who were concerned in the further development of the great and growing industry with which they were connected. If their work prospered—as he trusted it might—the Institution would necessarily become of national importance, and in that connection it was a hopeful feature that they had already been recognised by being consulted in regard to a proposal for the establishment of an International Petroleum Institution.

Their Council was thoroughly representative in its character, and it could be confidently depended upon to deal wisely and impartially with any matters within its province which might come before it. They had also been fortunate in having secured the valuable services in their respective capacities of honorary solicitor and honorary treasurer of Sir Frank Crisp and Sir William Plender. One of their first actions had been to give the Institution a defined corporate position through the medium of incorporation, and, in taking that action, Sir Frank Crisp had rendered the greatest personal assistance, and for which they were all much indebted.

In the list of founder members were the names of many who had honourably distinguished themselves in building up the British interests in petroleum which to-day existed in various parts of the world both in a commercial and in a professional capacity, and the list of elected members, associate members, associates and students with those who were candidates demonstrated hat the creation of that Institution was cordially welcomed. (Applause.)

They would therefore see that in those circumstances the Institution entered upon its career under the highest auspices and with the brightest prospects, and in conclusion he had only to say that the realisation of thos prospects now lay with the members of the Institution (Applause.)

Sir Boverton then called upon Sir Thomas H. Hollan to deliver his address upon "The Geometry of th Anticline," and in doing so said Sir Thomas had don splendid service in past years in India, where for long time he was director of the Geological Survey. H was also a member of the important committe appointed for the purpose of effecting certain alterations in the mode of conducting the petroleum industr of Burma, and in that way and in others he had devote special attention to the subject of petroleum, and was gentleman who was exceedingly well qualified fro every point of view to give instruction upon the subje he had chosen for that evening.

Sir Thomas Holland, prior to delivering his addres which was illustrated by numerous limelight illustrations, congratulated the Institution upon having secure as its first President one who was by general consen the most pre-eminent among the petroleum technologists of the world—Sir Boverton Redwood.

Mr. E. H. Cunningham-Craig, B.A., followed with brief address on "The Educational Aims of the Institution of Petroloum Technologists," while Profess Vivian B. Lewes read a paper on "Petroleum Technology as a Profession."

A hearty vote of thanks to Sir Boverton Redwoo concluded a most interesting meeting.

## THE TRAINING OF OIL-MEN.

SIR BOVERTON REDWOOD presided at the thirtie annual dinner of the Junior Institution of Enginee which was held at the Holborn Restaurant on Saturda

Sir Oliver Lodge, in proposing the "Petroleum Indu try," said it was an open secret that Professor Cadma had been to strange, little-known countries, exploring f possible sources of oil for the Government. They h a certain number of students at Birmingham wl studied oil mining and oil refining, and, owing to t kindness of Sir Boverton and his influence with the Well Engineering Company, plant had been provid and students would be able to study the operation boring in one of the yards of the University.

Sir Boverton Redwood, in responding, said the was every reason to be proud of the part British m of commerce and engineers had played in the develo ment of oilfields in every part of the world. But wh there had been leaders it had been difficult to find m properly qualified to take part in the work, and t University of Birmingham is instituting a spec curriculum for the training of students in petrole mining had performed a service of national importan

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**The Western Union Oil Company.**—This company wh is operating in the Santa Maria field has now a production 1,600 barrels per day and is earning twenty per cent. dividend. its thirteen years of operations the company has only drilled hole in which no oil was found.

**Mexican Exports to America.**—During the past y Mexico exported 16,360,779 barrels of crude oil to the United Sta the figures being approximately ten million barrels in excess those for the preceding year. With an improvement in the transp facilities it is expected that during the present year the figure w be more than doubled.

# THE BRITISH ADMIRALTY AND LIQUID FUEL.

## IMPORTANT STATEMENT BY THE FIRST LORD.

The important question of oil fuel for Admiralty needs came prominently before the House of Commons this week when Mr. Winston Churchill—the First Lord of the Admiralty—explained why he had to ask for a supplementary estimate of two-and-a-half millions sterling for various naval services for the year 1913-1914, included in which was £500,000 in connection with the question of liquid fuel for naval requirements.

Mr. Churchill said: I made a full statement to the House in July last on the subject of oil. I showed the great and numerous advantages which it offered in the construction of warships, and I showed also the difficulties, both business and military, and the dangers which were inseparable from the employment of fuel of this character, having regard to the fact that we possessed no large natural supply. I explained, so far as it was possible, the measures which we thought it necessary to take in order to steer our way through these difficulties and dangers in order to deal properly with the peculiar conditions of the oil market and the dangers of great price combinations. In this connection, above all, I demonstrated, I think to the satisfaction of the House as a whole, the vital necessity of building up without delay ample oil reserves in this country to enable us to override price combinations in times of peace and to come safely through military risks in time of war.

I shall not, of course, go over that ground again, but I must remind the Committee of the length and detail in which it was then discussed.

The Admiralty have from the very beginning adopted and maintained the standard of oil reserve proportionate to the number of oil-using ships laid down. That standard has been fixed as a result of elaborate calculations both of the peace and war requirements in relation to the world's supply of oil. The standard is, of course, subject to revision from time to time, as new circumstances and new tendencies manifest themselves, and we are here in a field where the conditions are novel and continually changing.

The actual quantity of oil which we keep in reserve, the standard which it is thought necessary to maintain, the distribution of oil between the different ports at home and abroad, and the prices at which our various contracts have been negotiated, are all, according to regular Admiralty practice long approved by this House, kept secret, and kept as secret as the standard of reserve of ammunition itself, and I must decline altogether to give exact particulars on such a subject. I have been asked a number of questions; I can only meet them by that answer, but I wish to give the House two main facts this afternoon which will, I think, be quite sufficient for a full comprehension on the part of the Committee of the issues likely to be put to the vote on the present occasion.

First, the average price of oil, including freight, has more than doubled in the last two years. The Committee will see at once what a heavy burden a fact like that imposes on the Admiralty at a time when we are not only purchasing for current consumption, but when we are accumulating a large initial reserve. That is the first fact.

The second fact should, I think, be carefully considered by those who may have been perturbed by rumours which are very freely in circulation as to the scarcity of the Admiralty's supply of oil at the present time. We have now to-day—this minute—safely stored in this country more than—I will not say how much more, but considerably more than—three years' peace consumption for the whole of our existing very large oil-burning fleet. It would be possible for us to conduct the whole movement of the present British Fleet for three years, including the manœuvres, without bringing another ton of oil into the country at the full extent of activity which has been observed in the present year.

We keep, and shall continue to keep, either purchased or stored in this country, or else in view under definite war contracts or other effective arrangements, sufficient oil to enable us to conduct a whole year's war.

That oil is proportioned from month to month, as are the reserves in this country, to the number of oil-burning ships which are on the emergency list for commission. That is our present position, and month by month, as the Fleet increases, the oil position will be fully maintained and even improved in the next twelve or fourteen months by estimates and arrangements which I shall ask Parliament to approve when the general estimates of the year are taken.

I hope that will allay undue anxiety upon that subject, because I have seen some ridiculous fairy tales in the papers about the deep anxiety with which the Admiralty has been watching the advent of a particular ship to these shores, carrying oil, owing to the narrowness of the margin on which they are working. We are not working upon a narrow margin in regard to any reserve of oil supply for the British Navy. During the summer of last year, on a re-survey of the general conditions of the oil situation, we decided that it would be wise to make a certain increase in the initial quantity of reserve which we should have at the present time. We did not make, of course, any addition to the ultimate total of the reserve. All that we did was to take measures which would enable us to have rather more in hand at the present time than we thought it necessary to have a year ago, when the estimates for 1913-14 were presented, and for that purpose £500,000 has been included in the votes.

I should like to point out that, although this increase of the oil reserve is paid for out of revenue under our existing financial practice, and has to be paid for out of revenue, the oil has not been consumed, and will not be consumed, but is stored away, and if the Navy went out of business to-morrow, if by some happy arrangement some moral awakening amongst the peoples enabled us to dispense altogether with naval preparations, none of this valuable commodity would be wasted; the whole of this oil could be sold at the market price, and could be applied to commercial purposes. Therefore, the money has not been spent in the ordinary sense.

It is a capital charge, if ever there were a capital charge, in return for which we have an asset of equivalent money value, and as the result of which we have a good and sufficient margin of security in a commodity of vital importance.

I shall not attempt to enter upon the wide questions of naval policy which are connected with the use of oil. I observe in various quarters a disposition to suggest that the whole policy of using oil is wrong, and that I personally am responsible for it, and for the great expense involved in it. If desired, I will deal fully with these complaints when the general estimates of next year are presented. Meanwhile, I will content myself by saying with regard to the expenditure this year upon oil, both for consumption and for reserve, no vessel for the design of which I and the present Board of Admiralty have been responsible has yet reached the water, and not a ton of oil has been required this year as a consequence of any measures taken by me, and, further, next year for every ton of oil for consumption and reserve required on account of vessels for which I have been responsible, five tons will be required for those which were built before my time, but for which I have to provide. The present Board of Admiralty, however, agree fully with the decisions in this respect which were taken by the Board of Mr. McKenna, and that in making clear the limits of my own responsibilities, I do not in the least impugn, but, on the contrary, endorse and carry forward the work and policy of my predecessor.

It was suggested by Lord Charles Beresford last year that the policy the Board of Admiralty followed during my tenure in regard to oil-burning ships was contrary to the recommendations of the Royal Commission. Both the series of reports and the minutes of evidence of that Commission, except, perhaps, the final report, which I am now considering, are strictly confidential, for military reasons, and also because the bulk of the evidence was given on the distinct understanding that secrecy would be observed.

I have, however, received from the Chairman of the Commission, Lord Fisher, the following statement, which has been agreed upon unanimously by the whole Commission. I will lay upon the table the document, from which this is an extract:—

> I have obtained the authority of my colleagues to write you this memorandum in order that the following summary of the unanimous views of the Commissioners may be available for such use as you think fit to make of it.
>
> 1. The advantages to be derived from the use of oil fuel, and the imperative necessity for such use if the Fleet is to be maintained in a condition of the highest attainable efficiency, are conclusively established by the Commissioners' first interim report.
>
> 2. The Commissioners are of opinion that the oil resources of the world are amply adequate to meet the requirements of the Fleet, if suitable measures are taken to secure supplies.
>
> 3. Large reserves should be accumulated in this country, and at certain other storage centres in British territory. The extent of these reserves should bear a prescribed relation to the consumption under peace requirements, and this will give a definite basis.

In asking the House to approve the action of the Government in spending £500,000 on increasing the oil reserves of the moment, or rather, ante-dating our accumulation of a certain standard of reserves, I think I can claim to prove that we have acted throughout on the highest expert authority, and that we have taken in good time all the measures necessary to assure what is undoubtedly a very difficult and complex operation, and I think I have defined within exiguous limits the personal responsibility which I have for the present scale of expenditure in regard to oil.

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## BAKU PETROLEUM PRODUCTION DURING JANUARY.

THE total production of crude oil in the Baku district during January amounted to 37,182,333 poods, of which 25,081,281 poods were obtained on the old areas, 8,405,277 poods on the Bibi-Eybat area and 3,695,775 poods on the Surakhani area. The above production includes 1,229,000 poods of spouted oil obtained on the Bibi-Eybat area and 803,060 poods of spouted oil on the Surakhani area. Besides the above production there were obtained 560,000 poods from hand-dug wells and 116,018 poods of white oil and 73,127 poods of gas on the Surakhani area. The production of the principal firms during the month was as under:—

| | Poods. |
|---|---|
| Nobel Bros. Society ... ... ... | 5,171,213 |
| Caspian and Black Sea Company ... | 3,148,950 |
| Zoubaloff ... ... ... ... ... | 2,169,000 |
| Baku Petroleum Company ... ... | 1,921,873 |
| Mantascheff ... ... ... ... | 1,802,150 |
| Mirzoeff Bros. Society ... ... ... | 1,400,900 |
| Benkendorf & Co. ... ... ... | 1,244,337 |
| Caspian Society ... ... ... ... | 1,231,360 |
| Russian Nafta Society ... ... ... | 1,099,800 |
| Moscow Caucasian Society ... ... | 1,023,000 |
| Runo ... ... ... ... ... | 866,400 |
| Pitoeff & Co. ... ... ... ... | 762,200 |
| Rilski Trustees ... ... ... ... | 651,000 |
| Assadullaeff ... ... ... ... | 633,395 |
| Kavkaz Company ... ... ... | 596,600 |
| Aramazd Company ... ... ... | 598,500 |
| Born ... ... ... ... ... | 553,850 |
| Ter-Akopoff Company ... ... ... | 534,600 |
| Oleum Company ... ... ... ... | 525,410 |
| Petro-Baku Company ... ... ... | 520,000 |
| Lianosoff & Sons .. ... ... ... | 507,810 |
| Nagieff Mussa ... ... ... ... | 498,793 |
| Schibaieff & Company ... ... ... | 479,280 |
| European Petroleum Company ... | 449,100 |
| Naftalan Company ... ... ... | 430,000 |

## NEW ENGLISH COMPANIES.

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REGISTERED on February 14th by Powell, Burt & Lamaison, 28 & 29, St. Swithin's Lane, E.C. Capital, £30,000 in £1 shares. Objects: To carry on the business of owners, etc. of oilfields, oil wells and mines, producers and manufacturers of oils and other products and by-products of oils, etc. Minimum cash subscription, seven shares. Signatories include B. A. Fisher, L. W. A. Money, W. Powell, C. McMahon Knocker, C. Hampden, J. Bentley, and J. Woodgatt. First directors (who are to number not less than two nor more than five) are not yet appointed. Registered office, Finsbury Court, Finsbury Pavement, E.C.

◆

### RUSSIAN CONSOLIDATED OILFIELDS CORPORATION, LTD.

Registered on February 7th, by Deacon & Co., 9, Great St. Helen's, E.C. Capital £1,250,000 in £1 shares. Objects: To acquire all kinds of oil-bearing lands, or any interest therein, etc., and to sink wells, and to search for all kinds of mineral oils, etc., and to carry on the business of dealers in and refiners of the same, etc.; also to enter into an agreement with Nobel Brothers Petroleum Production Company, and Russo-British (Ural) Oil Syndicate, Ltd..; Minimum cash subscription, £180,000. Signatories, W, J. Park, 4, Aberdeen Road, Highbury, N.; A. W. Eacott, 118, Addison Gardens, W.; J. Moulder, 29, Nelson Square, S.E.; E. Blackburn, 34, Elsham Road, Leytonstone; R. C. Allen, 208, Dunstans Road, East Dulwich, S.E.; E. Metcalf, 9, Gt. St. Helens, E.C.; and G. Bracefall, St. Bench Chas., Fenchurch St., E.C. First directors are to number not less than seven, four of whom are to be appointed by the signatories and three by Nobels. Qualification, 250 shares, Remuneration of directors, £300 each per annum (chairman £500 per annum). Registered office, 20, Copthatl Avenue, E.C.

◆

### THE WEST VIRGINIA OIL SYNDICATE, LTD.

Registered on February 11th by W. T. Ellis, 30-Moorgate Street, E.C. Capital £1,000 (990 ordinary shares of £1 each, and 200 management shares of 1s. each). Objects: To acquire any leases, concessions, and oilfields, etc., and to carry on the business of manufacturers of and distillers of crude and refined oils, sulphate of ammonia, and products and by-products of oil, and petroleum, etc. Signatories, W. J. Gregory, 78, Ashburnham Road, Kensal Rise, N.W., and F. J. Hatchman, 1, St. George's Villas, Park Road, Kingston Hill. First directors (who are to number not less than two nor more than five) are not yet appointed. Private Company.

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### PETROLEUM EXPLOITATION COMPANY, LTD.

Registered on February 17th, by Watson & Watson, 16, Finsbury Circus, E.C. Capital, £2,000 (1,900 shares of £1 each, and 2,000 shares of 1s. each). Objects: To carry on the business indicated by the title. Signatories: T. W. Watson, and K. R. Haybittle. First directors (who are to number not less than two) are to be appointed by the signatories. Registered Office, 6, Idol Lane, Eastcheap, E.C. Private company.

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## DETERMINATION OF PARAFFIN IN MINERAL OILS.

Paraffin is a residue left after distilling crude oil. The residuals usually obtained in distilling a crude oil are again re-distilled in order to obtain a paraffinous oil, from which paraffin itself is then extracted. This latter distillation can be conducted (1) without steam; (2) with steam; and (3) with steam and in vacuum. During distillation there is always a certain loss of paraffin by way of the decomposition of the latter, which loss varies according to the mode of distillation. Some interesting tests have been carried out in the central laboratory of the Steaua-Romana with three types of crude oil, viz., that of Campina, Policiori and Boryslaw, with the following results:—

| | Campina. | Policiori. | Boryslaw. |
|---|---|---|---|
| (1) Distillation without steam— | | | |
| Percentage of paraffin in the distillation ... | 5·7% | 13·1% | 12·3% |
| (2) Distillation with steam— | | | |
| Percentage of paraffin in the distillation ... | 11·3% | 16·7% | 17·9% |
| Difference ... ... | 5·6% | 3·6% | 5·6% |

Distillation with steam and in vacuum would, of course, result in still smaller losses. Another series of tests has been carried out with crude oils of Campina, Policiori, Boryslaw and Grosny in determining the contents of paraffin, first by ordinary method and then by direct determination in the crude oil.

After the crude oil had been distilled up to 250° C, the residue was washed in a filter with light benzine, and then treated with a mixture of ordinary concentrated sulphuric acid and fuming sulphuric acid. After the treatment the mixture was left to settle for about twenty-four hours, and the resulting oil was then again washed first with benzine and then with hot water, and in the resulting residue paraffin was determined by Holde's method, with the following results:—

| | Campino. | Policiori. | Boryslaw. | Grosny. |
|---|---|---|---|---|
| (1) Paraffin determined in the usual way ... ... ... | 4·9% | 3·0% | 6·0% | 6·4% |
| (2) Paraffin determined directly in the crude oil ... ... | 5·1% | 5·1% | 7·4% | 8·5% |
| Difference ... ... ... | 0·2% | 2·1% | 1·4% | 2·1% |

It results from the above tests that the loss of paraffin is generally very important, and varies according to the kind of crude oil used, and we have to conclude that there is still much to be done in the paraffin refining industry in order to reduce the losses.

## THE CONSUMPTION OF PETROLEUM PRODUCTS IN SIBERIA.

**Translated from "The Neftannoie Dielo."**

Petroleum products enter Siberia by means of three ways: (1) by the railways of European Russia, principally the Samara-Zlatoust railway, (2) from the station Tura, which is the terminus of the Perm railway, from where the petroleum products go by way of the River Ob and its affluents, and (3) by roundabout waterway from the ports of the Black Sea into the ports of the Pacific, Valdivostok and Midaliask.

In additon to the above a small amount of petroleum products enters into Eastern Siberia by way of the Eastern Chinese frontier. The following quantities of petroleum products entered Siberia by way of railways of European Russia during 1911:—

| | Crude Oil. | Residuals. | Kerosene. | Lubricating Oils. |
|---|---|---|---|---|
| | Poods. | Poods. | Poods. | Poods. |
| Siberian Railway ... | 256,000 | 439,000 | 1,450,000 | 131,000 |
| Trans-Baikal Railway | — | 92,000 | 369,000 | 42,000 |
| Ussuran Railway ... | — | 77,000 | 4,000 | 27,000 |

Altogether there were imported by railways 2,896,000 poods.

By way of the River Ob there were imported during the same year:—

| | Kerosene. | Residuals. | Crude Oil. | Lubricating Oils. |
|---|---|---|---|---|
| Poods ... ... ... | 1,192,000 | 159,900 | 247,900 | 69,100 |

or a total of 1,668,900 poods. From the ports of the Black Sea to the ports of the Pacific entered the total of 1,268,722 poods of products. The total products by all these ways amount to 5,833,700 poods. From Vladivostok the petroleum products go by way of Ussuran and Eastern Chinese Railway into Manchuria. Into the latter province during 1911 there were imported 333,600 poods of kerosene. From Midaliask the petroleum products go farther by way of River Amur and its affluents and then by way of Khabarovsk, Blagovestchensk and Stretensk.

The average consumption of kerosene in Siberia amounts to 12.4 pounds of kerosene per inhabitant as against 15.6 pounds per head in European Russia.

THE TEXAS COMPANY
Transporters, Refiners and Distributers of Petroleum and its Products.
General Offices: HOUSTON, TEXAS. Export Department: Whitehall Building, NEW YOR
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Telegrams: "TEXACOIL LONDON." Telephone: LONDON WALL 6257.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

March 6th, 1914.

The official prices of Refined Petroleum are unchanged s follows:—Russian, 7¾d.; American, 8d.; American Vater White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS.

The current quotations are for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

The price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

s quoted 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

The retail price in London for the best quality is s. 9d. and for the second quality 1s. 7d. per gallon.

### TURPENTINE.

The American Turpentine market is firm, and coniderable activity prevails. The spot price is 32s. 3d.; pril, 32s. 6d.; May/August, 33s. 1½d.; September/ ecember, 34/1½d.

## LIVERPOOL.

March 4th.

Petroleum oils have a steady sale, and former urrencies are asked for Refined, 8¾d. being still quoted r Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## AMERICA.

NEW YORK, March 3rd.

Refined, in cases, is quoted at 11·25; Standard White ·75; Credit balances, 2·50.

PHILADELPHIA, March 3rd.

Standard White is quoted at 8·75.

## ROUMANIA.

March 3rd.

The export of petroleum is for the moment very estricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| rude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·20–8·30 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–6·75 |
| ,, ,, ,, | Policiori... | 5·50 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| araffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| efined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| enzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| esiduals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| as Oil... ... ... ... ... ... | 8·00 |

## RUSSIA.

BAKU, March 3rd.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 41–41¼ copecs per pood spot. Kerosene, 50–50½ copecs. Residuals, 38½–39 copecs.

## GERMANY.

HAMBURG, March 3rd.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## AUSTRIA.

March 3rd.

Crude oil is quoted 8·00–8·15 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date March 5th as under :—

The market is quiet, and prices steady at last week's quotations, viz. :—

| | | | | |
|---|---|---|---|---|
| Ic | 18¾ × 14 | 124 sheets | 110 lbs. ... ... | 13/7½ per box. |
| Ic | 20 × 10 | 225 ,, | 156 ,, ... ... | 19/3 ,, ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

HOMELIGHT OIL
COMPANY, LTD.
*Importers and Distributors of*
REFINED PETROLEUM.

**"HOMELIGHT"** specially refined for the English Market for ILLUMINATING, HEATING and OIL ENGINE purposes.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

Specially prepared for this Journal by the Customs House.

FOR THE WEEK ENDED MARCH 2ND, 1911 (excluding any Imports which may not be disclosed)—

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| | LONDON— | | | |
| 29/1 | Anglo-American Oil Co. ... | Gas | 8,900 | New York |
| Feb. | | | | |
| 3 | Price's Patent Candle Co. ... | Lamp | 39 170 | Kustendje |
| 24 | Anglo-American Oil Co. ... | Lub. | 10,000 | New York |
| 24 | Bowring Petroleum Co. ... | ,, | 6,800 | ,, |
| 24 | R. O. Weiner & Co. ... ... | ,, | 470 | Baltimore |
| 21 | Port Authority ... ... | ,, | 800 | Philadel |
| 24 | Lubricating & Fuel Oils Co. | ,, | 1,030 | Hamburg |
| 24 | H. Vorley & Co. ... ... | ,, | 120 | ,, |
| 24 | Craven & Co.... ... ... | ,, | 360 | ,, |
| 25 | Port Authority ... .. | ,, | 5,000 | ,, |
| 25 | ,, ... ... | ,, | 30 | Marseilles |
| 25 | ,, ... ... | ,, | 400 | Baltimore |
| 25 | J. Thompson... ... ... | ,, | 1,000 | Riga |
| 25 | R. T. Lucas & Co. ... ... | Lub. Gr. | 490 | New York |
| 25 | Mercantile Lighterage Co. ... | Lub. | 18,560 | ,, |
| 26 | American Export Co. ... | ,, | 240 | ,, |
| 26 | Anglo-American Oil Co. ... | ,, | 1,000 | ,, |
| 26 | ,, ,, ... | Lamp | 2,249,680 | Philadel. |
| 26 | Vacuum Oil Co. ... ... | Lub. | 12,550 | New York |
| 27 | Port Authority ... ... | ,, | 320 | Hamburg |
| 28 | Hanseatic Maritime Agency | ,, | 80 | Bremen |
| 28 | Vacuum Oil Co. ... ... | ,, | 210 | Hamburg |
| 2/3 | Port Authority ... ... | ,, | 2,520 | ,, |
| | LIVERPOOL— | | | |
| 24 | Anglo-American Oil Co. ... | ,, | 11,000 | New York |
| 24 | Swan & Finch Co. ... ... | ,, | 1,200 | ,, |
| 24 | C. W. Field ... ... ... | ,, | 610 | Antwerp |
| 24 | Great Western Railway ... | ,, | 2,680 | Baltimore |
| 25 | Liverpool Storage Co. ... | ,, | 2,610 | ,, |
| 25 | Vacuum Oil Co. ... ... | ,, | 1,330 | New York |
| 25 | J. T. Fletcher & Co. ... | ,, | 260 | Antwerp |
| 25 | H. Parry ... ... ... | ,, | 240 | Hamburg |
| 26 | Pickford's ... ... ... | Lub. Oil and Paste | 120 | ,, |
| 26 | Anglo-American Oil Co. ... | Gas | 1,060,190 | Philadel. |
| 27 | Meade-King, Robinson & Co. | Lub. | 3,000 | N. Orleans |
| 28 | Liverpool Warehousing Co. | ,, | 200 | New York |
| 2/3 | Pickford's ... ... ... | Lub. Oil and Paste | 430 | Hamburg |
| 2/3 | Vacuum Oil Co. ... ... | Lub. | 120 | ,, |
| | BRISTOL— | | | |
| 24 | Ford & Canning ... ... | ,, | 6,990 | New York |
| 24 | C. Hill & Sons ... ... | ,, | 1,240 | ,, |
| 25 | H. Pritchard & Co. ... ... | ,, | 2,810 | ,, |
| 27 | ,, ... ... | ,, | 250 | Hamburg |
| 27 | W. Grimes ... ... ... | ,, | 240 | ,, |
| | GOOLE— | | | |
| 24 | Goole Steamship Co. ... | ,, | 360 | ,, |
| | HARWICH— | | | |
| 21 | Great Eastern Railway ... | ,, | 260 | Antwerp |
| 24 | ,, ,, ... | ,, | 120 | Hamburg |
| 24 | ,, ,, ... | ,, | 560 | Antwerp |
| 26 | ,, ,, ... | ,, | 200 | ,, |
| | HULL— | | | |
| 24 | T. M. Roberts & Co. ... | ,, | 500 | ,, |
| 24 | Wilson's & N. E. Railway ... | ,, | 200 | Hamburg |
| 25 | T. Wilson, Sons & Co. ... | ,, | 20 | New York |
| 26 | W. Gilyott & Co. ... ... | ,, | 22,060 | ,, |
| 26 | Helmsing & Son ... ... | ,, | 40 | Riga |
| 26 | Wilson's & N. E. Railway ... | ,, | 1,520 | Hamburg |
| 26 | ,, .. ... | ,, | 280 | Antwerp |
| 26 | ,, ,, ... | ,, | 1,000 | Dunkirk |
| | MANCHESTER— | | | |
| 24 | G. B. Taylor ... ... ... | ,, | 1,570 | Riga |
| 25 | Lamport & Holt ... ... | ,, | 2,920 | New York |
| 25 | D. Currie & Co. ... ... | ,, | 80 | Hamburg |
| 25 | J. T. Fletcher & Co. ... ... | ,, | 480 | Antwerp |
| 27 | Lamport & Holt ... ... | ,, | 5,200 | New York |
| 2/3 | Liverpool Storage Co. ... | Lub. Oil and Gr. | 43,610 | ,, |
| 2/3 | Anglo-American Oil Co. ... | Lub. | 52,970 | ,, |
| 2/3 | D. Currie & Co. ... .. | ,, | 80 | Hamburg |
| Feb. | NEWCASTLE— | | | |
| 24 | P. H. Matthiessen & Co. .. | Lub. | 50 | Bergen |
| 26 | ,, ,, ... | ,, | 240 | ,, |
| 26 | Tyne-Tees Steamship Co. .. | ,, | 1,000 | Antwerp |
| 26 | ,, ,, ... | ,, | 240 | Ghent |
| 26 | ,, ,, ... | ,, | 3,200 | Hamburg |
| | PORTSMOUTH— | | | |
| 25 | Bristol Steam Navig. Co. ... | ,, | 220 | ,, |
| | SWANSEA— | | | |
| 21 | Bristol Steam Navig. Co. ... | Lub. Gr. | 240 | Antwerp |
| 28 | Burgess & Co. ... .. | ,, | 2,600 | Hamburg |
| | GLASGOW— | | | |
| 24 | Clyde Shipping Co. ... ... | Lub. Oil and Gr. | 2,560 | Antwerp |
| 24 | Anchor Line ... ... | Lub. Gr. | 2,800 | New York |
| 27 | Allan Bros. & Co. ... .. | ,, | 800 | Philadel. |
| 27 | ,, .. ... | Lub. | 42,960 | ,, |
| | GRANGEMOUTH— | | | |
| 26 | Jas. Currie & Co. ... ... | ,, | 120 | Hamburg |
| | LEITH— | | | |
| 24 | G. Gibson & Co. ... ... | ,, | 2,080 | Antwerp |
| 26 | Jas. Currie & Co. ... ... | ,, | 1,200 | Hamburg |
| 27 | G. Gibson & Co. ... ... | ,, | 4,800 | Dunkirk |
| | BELFAST— | | | |
| 24 | G. Heyn & Sons ... ... | ,, | 140 | Riga |
| | DUBLIN— | | | |
| 25 | P. Murphy & Co. ... .. | ,, | 60 | Hamburg |
| 26 | ,, ... ... | ,, | 240 | ,, |
| | | | 3,657,830 | |

## SITUATION VACANT.

WANTED. — A first-class Petroleum Refine CHEMICAL ENGINEER, to take charge Refinery in the East. Good salary to suitable man. Reply fully, with experience, to Box "M.B.," care PETROLEUM REVIEW, 45, St. Mary Axe, E.C.

## SITUATIONS WANTED.

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OIL ENGINEER (English), college trained, wis executive position with oil company. Extens European and Eastern oil experience, capable f administrator, business manager and economist running production side. Most modern methods utilising wastes. Valuable man as assistant to gene manager. At liberty May, 1914. Reply Box "M. S. care of PETROLEUM REVIEW, 45, St. Mary Axe, E.

*From Lloyd's* March 5th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Tocopilla | Gaviota | L. Feb. 24 |
| AMERICAN | Antwerp | New York | Pd. Prawle Pt. Feb. 26 |
| APPALACHEE* | London | Philadelphia. | Arr. Feb. 28 |
| APSCHERON | Batonm & Barcelona | Melilla | Arr. Feb. 27 |
| ARAL | La Rochelle | Tyne | Pd. Beachy Hd. Mar. 3. |
| ARAS | Blyth | New York | Arr. Feb. 27 |
| ARCA | Alexandria | Singapore | L. Colombo Feb. 26 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Arr. Feb. 10 |
| ASHTABULA* | San Francisco | Pisagua | L. Jan. 27 |
| ASTRAKHAN | Tyne | New Orleans | Pd. Dunnet Hd. Feb. 26 |
| AUREOLE | Antwerp & London | Port Arthur. | Arr. Tyne Feb. 21 In port Mar 2 |
| AZOV | San Francisco | Callao | Arr. a'bt Feb. 17 |
| BAKU STANDARD | Kustendje | Hamburg | Pd. Dard. Feb. 25 |
| BALAKANI □ | Manchester | New Orleans | Arr. Newport News Mar 3 |
| BARNESON | Tyne | San Pedro (Cal.) | Off Fernando Noronha Mar. 2 |
| BATOUM | London & Amsterdam | Jacksonville. | Arr. Savannah, Mar. 1 |
| BAYONNE | Kustendje | Messina | Pd. Dard. Mar. 1 |
| BEACON LIGHT | Tyne | Abadan | Pd. Suez Mar. 2 |
| BEECHWOOD | Liverpool | Cienfuegos | L. Feb. 14 |
| BLOOMFIELD | Philadelphia. | Tuxpan | Pd. Sand Key Feb. 10 |
| BORJOM | Batoum | Alexandria | Arr. Feb. 11. In port Feb. 20 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Pd. Anjer Feb. 10 |
| BRILLIANT | Hamburg | Port Arthur. | Pd. Lizard Mar. 3 |
| BRITISH SUN | Philadelphia. | Ango Ango | Arr. Feb. 28 |
| BROADMAYNE | Calais | Tyne | Arr. Mar. 2 |
| BUFFALO | San Francisco | Taku Bar | L. Feb. 10 |
| BULLMOUTH △ | Karachi | Aroe Bay | L. Galle Feb. 22 |
| BULYSSES △ | Rangoon | Gibraltar | L. Suez Mar. 2 |
| BURGERMEISTER PETERSEN | Dantzig & Tyne | Sabine | Pd. Cape Wrath Feb. 27 |
| BUYO MARU | — | Karachi | Arr. ab't Mar. 4 |
| C. A. CANFIELD* | Colon | P. Mexico | L. Feb. 7 |
| CALCUTTA (Br. Bq.) | Yokohama | San Francisco | Arr. Feb. 23 |
| CAMILLO | Sheerness | London | Arr. Feb. 24 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | Batoum | Shanghai | L. Singapore Feb. 25 |
| CARPATHIAN □ | Tyne | New Orleans. | Arr. Mar. 2 |
| CASTOR | Singapore | Banda | L. Feb. 18 |
| CAUCASIAN □ | Hull & Tees | Gulfport | L. Bermuda Feb. 28 |
| CHARLES E. HARWOOD | Tampico | Sabine | Arr. Feb. 12 |
| CHARLOIS. | Sabine | Limhamn | Pd. Lizard Mar. 5 |
| CHATHAM | Baltimore | Tampico | Pd. Sand Key Feb. 19 |
| CHESTER | New York | Antwerp | Arr. Mar. 1 |
| CHEYENNE | Sabine | Barrow | L. Feb. 19 |
| CIRCASSIAN PRINCE | — | — | T. W.C.S. America |
| CITY OF EVERETT | Tampico | New York | 346 miles S. of Hatteras Feb. 17 |
| CLAM △ | Zanzibar | Colombo | Arr. Feb. 25 |
| CLEARFIELD | — | P. Mexico | Arr. Feb. 28 |
| COMANCHEE | Philadelphia. | Liverpool | Arr. Feb. 26 |
| CONCH △ | Singapore | Gibraltar | L. Bizerta Mar. 2 |
| CONRAD MOHR | Philadelphia | Christiania | L. ab't Feb. 17 |
| CORDELIA | Antofagasta | Port San Luis | L. Feb. 14 |
| COWRIE △ | San Francisco | Shanghai | Put back San Francisco after being ashore |
| CURRIER | P. Padre | Boston | Arr. Feb. 12 |
| CYMBELINE | Port Arthur. | Christiania | L. Norfolk, Va., Feb. 17 |
| CYRENA | Brisbane | Singapore | L. Feb. 10 |
| CZAR NICOLAI II. | Batoum | Rouen | Arr. Malta Mar. 2 |
| DAGHESTAN | Philadelphia. | Thames Haven & Antwerp | L. Feb. 27 |
| DANUBIAN □ | Port Arthur | London | Arr. Feb. 18. In port Mar. 4 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Arr. Feb. 28 |
| DELAWARE* | Tyne | Port Arthur. | Pd. Dunnet Hd. Feb. 17 |
| DELPHIN | New Orleans. | Swinemunde | In wireless com. Feb. 28 |
| DERBENT | Hamburg | Batoum | Pd. Dard. Feb. 26 |
| DESALBA | Antofagasta | San Pedro | L. Feb. 24 |
| DEUTSCHLAND | Philadelphia. | Copenhagen | Pd. Dunnet Hd. Mar. 5 |
| DIAMANT | New York | Rotterdam | Arr. Feb. 20. In port Feb. 24 |
| DONAX | Abadan | — | Arr. Suez Mar 3 |
| EBURNA △ | Gemsah | Singapore | L. Mar. 2 |
| EDWARD L. DOHENEY | Tampico | Port Tampa | Arr. Feb. 20 |
| EL LOBO | San Francisco | — | L. Feb. 23 |
| EL SEGUNDO | San Francisco | Honolulu | L. Feb. 17 |
| EL TORO | New Orleans | Campana | Pd. Pernambuco Feb. 27 |
| ELAX △ | Trieste | — | Pd. Constantinople Mar 3 |
| ELISE MARIE | Gothenburg | Hamburg | Arr. Mar. 1 |
| ELSINORE | St. Helens | San Francisco | Arr. Mar. 1 |
| EMANUEL NOBEL | Batoum & Kustendje | Antwerp | Arr. Feb. 22. In port Mar. 3 |
| ENERGIE | Galveston | Tampico | L. Feb. 17 |
| ERIVAN | Batoum | St. Lonis, Rh | Pd. Dard. Feb. 25 |
| ESCALONA | Rio Janeiro | Trinidad | L. Mar. 3 |
| ESTURIA | Balek Pappan | Singapore | L. Feb. 24 |
| EUPION | Sunderland | New York | Arr. Feb. 27 |
| EUPLECTELA △ | Singapore | Sydney | Arr. ab't Mar. 3 |
| EXCELSIOR | Tyne | Philadelphia. | Arr. Mar. 4 |
| F. A. TAMPLIN | P. Mexico | Manchester | Arr. Feb. 5. In port Mar. 3 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans | New York | Arr. Jan. 28. In port Feb. 20. |
| GENESSE* | Liverpool | New York | Arr. Feb. 22 |
| GEORGIAN PRINCE | Tyne | Port Arthur | Pd. Dover Feb. 27 |
| GOLDMOUTH △ | Batoum | Colombo | Pd. Perim Feb. 26 |
| H. C. HENRY | Grangemouth | Seattle | Pd. Fernando Noronha Feb. 27 |
| HAGEN | New York | Rotterdam | L. Feb. 18 in wireless com. with Bro v Hd. Mar. 5 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | San Francisco | Pisagua | Arr. Feb. 11 |
| HARRY LUCKENBACH | Baltimore | Galveston | Pd. Sand Key Feb. 4 |
| HAVRE | Sydney | Singapore | Arr. Feb. 23 |
| HELIOS | New York | Rotterdam | L. Feb. 26 |
| HERA | Hamburg | Marcus Hook | Pd. Lizard Feb. 24 |
| HERBERT G. WYLIE | Sabine | Tampico | Crossed Sabine Bar Feb. 4 |
| HERMIONE | Sonthampton | Port Arthur | Pd. Lizard Feb. 15 |
| HESPERUS | San Francisco | Taltal | L. Feb. 17 |
| HORLEY | New Orleans | Tampico | L. Port Eads Feb. 10 |
| HOTHAM NEWTON | Batoum | Amsterdam | Pd. Gib. Feb. 28 |
| HYRCANIA | Kustendje | Manchester | Pd. Gib. Mar. 2 |
| ILLINOIS | Antwerp | Port Arthur | Pd. Sand Key ab't Feb. 20 |
| IMPEROYAL | — | — | T. R. St. Lawrence |
| IMPOCO | Savona | Genoa | Arr. Feb. 26 |
| IROQUOIS (Towing Barge Navahoe) | New York | London | 180 miles W. of Lands End Mar. 5 |
| J. B. AUG. KESSLER △ | Batoum | Perim | L Suez Mar. 2 |
| J. OSWALD BOYD | Port Aransas | Tampico | Arr. Feb. 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam & Flushing | Batoum | Towed Brest Feb. 28 |
| JUNO △ | Palembang | Singapore | Arr. Feb. 27 |
| KANAKUK | San Francisco | Hong Kong | L. Feb. 17 |
| KASBEK | Kustendje | Genoa | Pd. Dard. Feb. 27 |
| KIOWA | Sabine | Bremerhaven | Arr. Mar. 1 |
| KIYO MARU | Valparaiso & Honolulu | Hong Kong | Arr. ab't Jan. 24 |
| KOMETA | Spezia | Novorossisk | Cl. Constantinople Jan. 16 |
| KREMLIN | Batoum | Hamburg | Pd. Dover Mar. 4 |
| KURA | Tuborg | Blyth | Arr. Feb. 20. In port Mar. 3 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA CAMPINE | New York | Antwerp | Arr. Feb. 20. In port Mar. 3 |
| LA FLANDRE | Antwerp | Sabine | Pd. Sand Key Feb. 18 |
| LA HESBAYE | Antwerp | Philadelphia. | Put back Fayal about Mar. 3 |
| LACKAWANNA* | Manchester | New York | Pd. Nantucket Feb. 25 |
| LAMPO | Genoa | Philadelphia | Pd. Gib. Mar. 1 |
| LE COQ □ | Rouen | New York | L. Gijon Feb. 26 |
| LEDA | Baton Rouge | Hamburg | 52 m. N.W. Land's End Mar. 4 |
| LOKI | Hamburg | New York | Arr. Feb. 15. In port Feb. 20 |
| LUCELLUM | New York | Portsmouth | L. Feb. 19 |
| LUCERNA | Kustendje | Rotterdam | Pd. Gib. Mar. 4 |
| LUCIGEN | Cardiff | Abadan | Arr. Port Said Feb. 27 |
| LUCILINE □ | Philadelphia. | Cette | Arr. Feb. 28 |
| LUMEN | Hamburg | Tyne | Arr. Feb. 21. In port Mar. 2 |
| LUTETIAN □ | Bordeaux | Novorossisk | In Ile Verte Roads Feb. 26 |
| LUX □ | Tarragona | Cadiz | Arr. Mar. 1 |
| LUZ BLANCA | Talara | San Francisco | Arr. ab't Feb. 16 |
| MAKKAVEI | Kustendje | Alexandria | Arr. Feb. 21 |
| MANNHEIM | Philadelphia. | Copenhagen | L. Feb. 26 |
| MARGARETHA | Kustendje | Antwerp | Arr. Mar. 3 |
| MASCONOMO | San Francisco | Tsingtau | Arr. ab't Feb. 9 |
| MASSASOIT | San Francisco | Mi-ike | L Jan. 29 |
| MEPPEN | Novorossisk | Schulan | Arr. Mar. 1 |
| METEOR | Kustendje | Hull | Pd. Dard. Feb. 26 |
| MEXICAN PRINCE | Singapore | Shanghai | L. Feb. 27 |
| MIJDRECHT | Hamburg | Kustendje | Arr. Feb. 27. In port Mar. 2 |
| MINA BREA | Callao | Talara | L. Jan. 31 |
| MIRA | Kustendje | Alexandria | Arr. ab't Mar. 3 |
| MITRA △ | Suez | Singapore | Pd. Perim Mar. 1 |
| MOHAWK* | New York | Tampico | L. Feb. 6 |
| MOHICAN | Rotterdam | New York | L. Feb. 23. In wireless com. Feb. 28 |
| MUREX △ | Balek Pappan | Singapore | Arr. Feb. 27 |
| NARRAGANSETT | London | New York | 110 miles S. of Brow Hd. Feb. 24 |
| NATICA △ | Balek Pappan | Singapore | L. Feb. 27 |
| NELSON | Philadelphia. | Port Arthur. | Arr. Feb. 20 |
| NEW YORK* | Rotterdam | Norfolk | Arr. Mar. 4 |
| NIAGARA | Hong Kong | Shanghai | Arr. ab't Mar. 3 |
| NORMAN BRIDGE | Sabine | Tampico | 45 miles S.W. of Sabine Feb. 18 |
| OAKWOOD | Cienfuegos | London | L. Feb. 21 |
| OBERON | — | Port San Luis | Arr. Feb. 12 |
| OCEAN | Amsterdam | Philadelphia. | Pd. Lizard Feb. 17 |
| OILFIELD | London | Tyne | Arr. Feb. 20. In port Mar. 2 |
| ORIFLAMME □ | Novorossisk | Havre Roads | L. Sagres Feb. 28 |
| OSAGE | Tampico | Tampa | Arr. Feb. 19 |
| OTTAWA* | Liverpool | New Orleans. | Arr. S. Michael's Mar. 2 |
| OURAL | Spezzia | Kustendje | L. Mar. 3 |
| PALEMBANG △ | Rangoon | Cocanada | Arr. Feb. 26 |
| PATELLA △ | Tyne | Malta | Pd. Sagres Mar. 1 |
| PAUL PAIX | Kustendje | Dunkirk | Pd. Dard. Feb. 26 |
| PAULA | Philadelphia. | Lisbon | L. Feb. 27 |
| PAWNEE | New York | Lisbon | Arr. Jan. 29 |
| PECTAN | Taltal | San Francisco | Arr. Feb. 8 |
| PENNOIL | Rotterdam | Philadelphia | Put back Feb. 4. In port Mar. 3 |
| PETROLEINE | Bordeaux | New York | L. Pauillac Mar. 1-2 |
| PETROLEUM | Port Arthur | Portsmouth. | Arr. Feb. 2 |
| PHOEBUS | Iquique | San Francisco | Arr. Feb. 19 |
| PINNA □ | Hamburg | Tyne | Arr. Feb. 3. In port Mar. 2 |
| PONUS | Shanghai | San Francisco | Arr. ab't Feb. 23 |
| POTOMAC* | Sunderland | New Orleans. | At Flushing Mar. 5 |
| POWHATTAN | San Francisco | Bombay | Arr. Singapore ab't Feb. 23 |
| PROMETHEUS | Antofagasta | San Francisco | Arr. ab't Mar. 3 |
| PRUDENTIA | Trinidad | New York | Arr. Feb. 12. In port Feb. 20 |
| PURELIGHT | Hamburg | Philadelphia. | L. Tyne Feb. 25 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | Arr. Feb. 22 |
| RADIOLEINE | Port Arthur. | Bremen | L. Port Eads Feb. 12 |
| RANELLA △ | Singapore | — | Pd. Sagres Feb. 28 |
| RENDOVA (Br. Bq.) | Seville | New York | L. Feb. 5 |
| RICHMOND | Seattle | San Francisco | Arr. Feb. 3 |
| RION | Blyth | Port Arthur | L. Feb. 20 |
| ROCK LIGHT □ | Port Arthur | Amsterdam | L. Newport News Feb. 28 |
| ROMANY △ | Hong Kong | Singapore | L. Feb. 24 |
| ROSALIND | Port Arthur | Portsmouth | L. Norfolk Feb. 28 |
| ROTTERDAM | Queenstown | Rotterdam | Arr. Feb. 28. In port Mar. 3 |
| ROUMANIAN □ | Sabine | Avonmouth | L. Newport News Mar. 3 |
| ROUMANIAN PRINCE | Jacksonville. | | Arr. Sand Key Feb. 28 |
| RUSSIAN PRINCE | Aransas | Tampico | L. Feb. 16 |
| SABINE RICKMERS | Hong Kong | Swatow | L. Feb. 25 |
| SALAHADJI △ | Balek Pappan | Singapore | L. Feb. 24 |
| SAMOSET | Shanghai | San Francisco | Arr. ab't Mar. 4 |
| SAN ANTONIO | Queenboro' | Rotterdam | Arr. Feb. 8 |
| SAN BERNARDO | Puerto Mexico | Thames Haven | Arr. Mar. 1 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Manchester | Puerto Mexico | 75 m. W. of Brow Head Mar. 1 |
| SAN EDUARDO | Puerto Mexico | Portsmouth | L. Feb. 28 |
| SAN FRATERNO | Queenboro' | Balek Pappan | Sailed from Anjor Feb. 28 |
| SAN GREGORIO | Rotterdam | Tyne | Arr. Mar. 1 |
| SAN HILARIO | Borneo | Sheerness | Pd. Anjor ab't Feb. 24 |
| SAN JERONIMO | Sunderland | Borneo | L. Suez Feb. 28 |
| SAN JOAQUIN | Tyne | San Francisco | Arr. Feb. 23 |
| SAN LORENZO | Tyne | Mexico | 27 miles S.W. of Niton Feb. 15 |
| SAN RICARDO | Portland | Borneo | Arr. Port Said Feb. 28-Mar. 1 |
| SAN SILVESTRE | London | New York | Pd. Dover Mar. 4 |
| SAN TIRSO | New Orleans | Norfolk, Va. | L. Feb. 26 |
| SAN URBANO | London | Tuxpan | 16 m. S. of Land's End Feb. 25 |
| SAN VALERIO | Philadelphia | Tuxpan | Arr. Feb. 16 |
| SANTA MARIA | Hilo | San Francisco | Arr. Dec. 12 |
| SANTA RITA | Vancouver | Port San Luis | L. Feb. 7 |
| SATANTA | San Francisco | Yokohama | Arr. ab't Feb. 23 |
| SAXOLEINE | New York | Havre | L. Feb. 27 |
| SEBASTIAN | London | Black Sea | Off the Wight Mar. 3 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port Mar. 3 |
| SEQUOYA | San Francisco | Amoy | Arr. ab't Jan 23 |
| SERVIAN □ | Port Arthur. | Avonmouth | Arr. Mar. 4 |
| SHABONEE | Calcutta | San Francisco | Arr. ab't Feb. 14 |
| SILVIA | Port Arthur. | Sheerness | L. Newport News Mar. 3 |
| SIOUX | Buenos Aires | San Francisco | Arr. Feb. 7 |
| SIRIUS (Ger.) | Kustendje | Copenhagen. | Pd. Gib. Mar. 5 |
| SOCONY | Port Arthur. | New York | Arr. Jan. 31. In port Feb. 13 |
| SOYO MARU | — | — | Pd. Perim Mar. 3 bound North |
| SPLENDOR | Philadelphia. | Savona | Arr. Mar. 2 |
| STAG | Rotterdam | Antilla | Pd. St. Michaels Feb. 28 |
| STANDARD | Liverpool | Rotterdam | Arr. Feb. 24. In port Mar. 3 |
| STROMBUS △ | Portsmouth | Cardiff | Arr. Jan. 27. In port Mar. 3-4 |
| SULTAN VAN LANGKAT △ | Suez | Madras | L. Aden Feb. 14 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4. In port Jan. 20 |
| SURAM | Copenhagen. | Blyth | Arr. Jan. 16. In port Mar. 3 |
| SUWANEE* | Plymouth | Sunderland | Arr. Feb. 20 |
| SVIET | Batoum | Odessa | L. Feb. 9 |
| TASCALUSAH | New York | Calcutta | Arr. ab't Mar. 4 |
| TATARRAX | New York | Calcutta | Pd. Perim Feb. 26 |
| TEAKWOOD | Port Arthur | Portland | Arr. Mar. 5 |
| TECUMSOH | Baton Rouge | Tampico | Cl. New Orleans Feb. 18 |
| TELENA △ | New Orleans | Alexandria | Arr. S. Michaels Mar. 1 |
| TEREK | Sunderland | Tyne | Arr. Feb. 9. In port Mar. 2 |
| TEXAS | Port Arthur | New York | Arr. Feb. 10 |
| TIFLIS | Antwerp | Batoum | Pd. Gib. Feb. 28 |
| TONAWANDA* | London | Sunderland | L. Feb. 26 |
| TRINCULO | San Luis | Vancouver | Arr. Feb. 24 |
| TRINIDADIAN | Tampico | Port Arthur | Arr. Feb. 19 |
| TRITON | Hamburg | Baton Rouge | Arr. Feb. 26 |
| TROCAS △ | Kobe | Balek Pappan | L. Feb. 18 |
| TURBO △ | Tyne | Port Said | Arr. Feb. 28 |
| UNCAS | Hong Kong | San Francisco | Arr. ab't Feb. 2 |
| VEDRA | Bremerhaven | Port Arthur | Arr. Mar. 1 |
| VILLE DE DIEPPE (Norwegian Barque) | Philadelphia. | La Pallice | Pd. Delaware B'kwater Feb. 1 |
| VITRUVIA | Novorossisk. | — | Pd. Dard. Mar. |
| VOLCANUS △ | Singapore | Miri | L. Feb. 28 |
| VOLUTE △ | Rangoon | Port Said | Pd. Perim Feb. 2 |
| WABASHA | Calcutta | San Francisc | L. Feb. 26 |
| WANETA | Galveston | Tampico | 176 m. S. of Gal vaston Feb. 1 |
| WAPELLO | Manchester | New York | Arr. Mar. 3 |
| WASHINGTON | Norfolk, Va. | Tampico | Arr. Feb. 22 |
| WEEHAWKEN | Cienfuegos | London | Arr. Mar. 2. In port Mar. 4 |
| WIELDRECHT | Sunderland | Abadan | Pd. Gib. Feb. 2 |
| WILLIAM F. HERRIN | San Francisco | Monterey | L. Dec. 10 |
| WILLKOMMEN | New York | Stockholm | Pd. Cape Wrat Feb. 28 |
| WINAMAC | Mi-ike | San Francisco | L. Feb. 6 |
| WOTAN | Hamburg | New York | 120 m. S. Bro Head Feb. 17 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### Deep Drilling in Texas.

WITH a view to materially increasing the output of oil in the Texas fields, a movement is now on foot to sink several wells to the deeper strata, and it is expected that in the next few months considerable activity in this direction will be witnessed, to prove the value of the theory that the production can be increased by going to greater depths than those at which the pay sand has been found in the past. The first of the districts in which the deep tests are to be made is the Goose Creek field, and here the various concerns are offering the Guffey Company options upon outside land in order that a 3,500 ft. well may be put down. If the test proves successful, it naturally follows that the value of the land held by the several companies operating in the shallow sands will be considerably increased. Then the Sour Lake Field is also to be energetically drilled, for there the deep sand theory has already been proved successful, for a number of deep test wells have been brought in with most encouraging production. Heretofore the idea of deep drilling has not been particularly favourably received in Texas in spite of the fact that the majority of deep tests put down have been very successful, and it is only since the rotary has become so popular that producers are awakening to the fact that it pays to get down to the deep sands.

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### America's Exports of Paraffin Wax.

THE official figures of America's foreign trade in paraffin wax for the past year have just been published, and are found in detail in another part of this issue. During the twelve months it appears that the total exports amounted to 236,000,000 pounds, and were valued at $8,176,000, which totals are considerably behind those for the preceding twelve months, when the total quantity exported was 294,000,000 pounds, valued at $9,600,000. The figures, however, are greatly in advance of the quantities exported during 1911, when the total only reached 214,000,000 pounds and the value was but $7,000,000. The United Kingdom is the chief consumer of American paraffin wax, and last year alone received nearly 96,000,000 pounds, Africa coming second with less than one-third of this amount.

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### Australia Offers a Bonus on Petroleum Production.

IT will be remembered that although rumours have been current for some years past of the discovery of oil deposits on Kangaroo Island and the western coast of Eyre's Peninsula, a recently-issued report of the Government geologist, who was deputed to investigate the matter, is against the likelihood of oil being discovered in those localities. In view, however, of the great value of an oilfield being tapped, the Government has offered a bonus of £5,000 to the person or body corporate first obtaining, from a bore or well situated in South Australia, 100,000 gallons of crude petroleum containing not less than 90 per cent. of products obtainable by distillation. The Minister of Mines must be furnished, *inter alia*, with samples of the strata passed through by the bores, to be taken at every 50 ft. sunk, and with a certificate of the Government analyst of the result of his analysis of samples of the oil. The oil must be stored at the bore or well from which it is obtained until the whole 100,000 gallons have accumulated. The Government offer should certainly give an impetus to petroleum exploration in the Commonwealth.

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### Oil for Preventing Fogs.

THE efficiency of oil for the purpose of calming troublesome waters is well known, but a sphere of usefulness in another direction appears to be in store for it, for, according to Prof. Georges Onofrio, of the Fourviere Observatory at Lyons, France is now to dispel fogs by the use of the valuable liquid. The project formulated by the Professor consists in pouring oil on the rivers some distance from cities at points where the fogs usually collect, so that the surface of the streams will be covered with a thin film of oil for a distance sufficient to prevent the rise of vapours within the fog area. Experiments are already being conducted upon a fairly large scale, and the inventor hopes that these will, when carried out upon really practical lines, replace the average sixty days of fog with which Lyons is annually inflicted, by sixty days of normal weather. Should practice bear out the theory held by the inventor, then we, in London, may look forward to less fog than the Metropolis has had hitherto ; but there are, indeed, many difficulties to yet be overcome before London fogs will be a thing associated only with the past.

## SUDDEN DEATH OF MR. T. H. HAWKS.

We regret to announce the sudden death of Mr. Thomas Hardaway Hawks, who has been for a number of years directly associated with the Anglo-American Oil Company, Ltd., in the capacity of director and secretary. Mr. Hawks was at business as usual last Monday week, but became seriously ill during the evening, death taking place in the early hours of the following morning. The body has been taken to the States on board the "Mauretania," the funeral service being fixed for to-day (Saturday), at Trinity Church, Parkersburg.

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## SERIOUS FIRE ON THE SPIES PROPERTY AT GROSNY.

On Wednesday a serious fire occurred on the Spies Petroleum Company's property in the Grosny field, as a result of which four deaths occurred. It appears that during trial baling in a new well situated among the Company's eastern plots—the Kousmin plot 14—an explosion occurred in one of the neighbouring houses on the plot owing to the great quantities of gas given off by the well. For some time baling was suspended upon adjoining plots, for the new well caught fire, but the latest telegrams report that the damage occasioned is not considerable. The loss of life, however, is greatly to be deplored.

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## MESSRS. S. PEARSON & SON TAKE OVER THE CONCESSIONS OF THE ORION OIL CO.

The Review officially learns from the Orion Oil Company, Ltd., that the option given last October to Messrs. S. Pearson & Son for the acquisition of the property has been duly exercised. As a result of this distinctly favourable turn of events, the old company will forthwith go into liquidation, a new company having been registered under the title of the Ain Zeft Oil Company, Ltd., with a capital of £34,000.

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## LAUNCH OF THE M.V. "ARABIS."

On Thursday the second of the motor vessels built to the order of the Flower Motor Ship Company, Ltd., for which Messrs. M. Samuel and Co. are the managers, was launched from the yards of Messrs. Smith's Dock Company, Ltd., at Middlesbrough, the vessel being named the "Arabis."

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## THE FIASCO OF THE BAKU LAND AUCTIONS.

Last Friday (the 6th inst.) the Russian Senate in St. Petersburg discussed the report presented by the Minister of Trade with regard to the results of the auctions which took place last May of certain Crown oil lands in Baku.

When the auctions were held the Government demanded a royalty on the net production after the first producing cost had been deducted, and thus those operating firms who could show the smallest production costs secured the claims. Some firms placed the production at but a few shillings per ton, while others, in an attempt to secure the claims, placed the producing cost at nil.

The Senate, however, recognised the absurdity of the whole procedure, and by seventeen votes to three annulled the results.

## PETROLEUM EXPLOITATION IN MONTENEGRO.

The Review is officially informed that on February 28th last the Parliament of Montenegro decided to give the Montenegro Syndicate of The Hague the definite concession for the exploitation of the oil deposits in the kingdom of Montenegro. The offices of the syndicate are at 7, Frederick Hendrikplein, The Hague.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended March 7th was 122,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended March 8th was 281,655 poods, or about 4,543 tons. The total production for the year from January 14th to March 8th was 2,247,855 poods, or about 36,256 tons. The total production for the corresponding period last year was 2,101,330 poods, or about 33,892 tons. Price of crude oil at Baku is now 42½ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended March 7th was 28,181 poods, or 455 tons.

European Oilfields Corporation, Ltd. — The production for the week ended March 8th was 37,200 poods, or 600 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended March 7th was 132,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended March 7th was 22,281 poods (359 tons).

Maikop New Producers, Ltd.—Production for week ended March 7th was 8,200 poods (132 tons).

British Maikop Oil Company, Ltd.— Production for week ended March 8th was 17,419 poods, or 281 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended February 28th, 91,500 poods, or 1,476 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended March 10th was 488,691 poods, or 7,882 tons. Corresponding period last year, 1,615 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended March 8th was 87,267 poods, or 1,408 tons.

Maikop Midland.—Production at Krimskaya for week ended March 7th was 5,100 poods, or 82 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended March 7th was 23,587 poods (380 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended March 7th was 1,345 poods (22 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended March 7th was 3,900 poods, or 63 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
LONDON, E.C.

# ANOTHER 15,000-TON TANKER TAKES THE WATER

## LADY MURRAY LAUNCHES THE "SAN MELITO."

*Special and Exclusive Report.*

On Thursday last another of the 15,000-ton oil-tankers which are forming part of the gigantic transport fleet of the Eagle Oil Transport Company, Ltd., was launched from the Jarrow yards of Messrs. Palmers Shipbuilding and Iron Company, Ltd.

The "San Melito," which is the seventh vessel of the ten 15,000-ton tank steamers which form half of the fleet of the Eagle Oil Transport Company, Ltd., is built on the Isherwood system of longitudinal framing to Lloyd's highest class, and represents the latest type of oil-carrying steamers, having been specially built for the Mexican oil trade. The principal dimensions are:—Length B. P., 530 ft.; breadth, 66½ ft.; moulded depth, 33½ ft.; height to shelter deck, 8 ft.

Photo by] The Launching Party—Lady Murray in the Centre. [Topical Press Agency

With the launch of the "San Melito" seventeen of the fleet of twenty vessels are in the water, and the total carrying capacity of the fleet when the remaining three vessels are in service will be 250,000 tons.

The vessel—like the "San Fraterno" and her other sister ships—has twelve oil-cargo holds, divided by a longitudinal oil-tight bulkhead into twenty-four compartment tanks. All the tanks are fitted with steam heating coils to facilitate the handling of heavy oils. The pumping installation is contained in two pump rooms, and has a total capacity of 1,200 tons per hour. The boilers are oil-fired on the Wallsend Howden system and will burn Mexican fuel oil. The quadruple-expansion engines are designed to give a speed of at least 11¼ knots on a minimum fuel consumption. The necessary supply of fuel for the boilers is carried in a large cross bunker aft, a deep tank forward, and at the sides of the main-expansion trunk. This arrangement simplifies the trimming of the vessel. The accommodation for officers and men is of a very complete and generous character, and the equipment of the vessel, which includes cold storage refrigerators and Marconi's wireless telegraphy, is representative of the latest practice in ocean-going vessels.

There was a particularly large party present at the launching ceremony, amongst which, in addition to Lady Murray of Elibank, we noticed Captain Godfrey-Faussett (Director of the Eagle Oil Transport Company, Ltd.), Mr. and Mrs. G. Mure Richie, Mr. and Mrs. A. B. Gowan, Miss Gowan, Mr. and Mrs. C. F. Lloyd, Mr. and Mrs. Claude B. Palmer, Mr. and Mrs. E. F. Smart and Miss Smart, Mr. and Mrs. J. L. Twaddell, Mr. and Mrs. J. W. Reed, Mr. and Mrs. S. L. Worton, Mr. W. Bradney (Messrs. Jacobs & Barringer), Mrs. Farquharson, Mr. H. Scott Russell, Mr. D. Kemp, Mr. J. Patton, Mr. Whittaker (Anglo-Mexican Petroleum Products Company, Ltd.), Engineer Lieut. J. C. Cunningham and Mrs. Cunningham, Engineer Commander Edwards and Mrs. Edwards, Mr. and Mrs. L. E. Limming, Mr. B. Whittaker, Jun., Mr. W. L. Dunkers and Mr. Wood (Anglo-Mexican Petroleum Products Company, Ltd.), Prof. and Mrs. Stewart Macdonald, Mr. and Mrs. A. S. Blatchford, Mr. and Mrs. R. A. Phillips, Mr. E. W. Delacour (Press Manager of the Anglo-Mexican Petroleum Products Company, Ltd.), and others.

Flying the Mexican Eagle and other national flags, the "San Melito" took the water in a most majestic manner, Lady Murray breaking the customary bottle at the vessel's bows at the very moment it commenced its movement from the slips, and expressing at the same time the hope that the good ship would have a very prosperous career. As the vessel touched the water Lady Murray accepted from the builders an exquisite bouquet of pink roses and lily of the valley, the various blooms being artistically entwined with smilax.

The launching party then adjourned to the general offices of Messrs. Palmers, where Mr. G. Mure Richie (Chairman of Palmers Company) presided.

In asking the guests to drink to the "Success of the 'San Melito' and her Owners," Mr. Richie said that vessel was the fourth steamer which they had had the honour to launch to the order of the Eagle Oil Transport Company, Ltd., and she was one of the largest tankers afloat. Last year they handed over to the owners the sister ship "San Hilario," while they had at present on the point of proceeding on her trials the "San Zeferino," a vessel which, while not so large as the ship they had launched that day, was still a very important and notable addition to that company's great fleet.

Lady Murray specially poses for the "Review." Mr. Godfrey-Faussett in the Background.

He was glad to know that in connection with all those vessels, and the carrying out of important contracts with them, their relations with the company had been of a very cordial and satisfactory nature, and it had been a great pleasure to the builders to work with them and to turn out those important vessels for their account.

On that occasion it would be interesting to recall the fact that Palmers Company were the firm to build the pioneer tank steamer launched in this country—she was named the "Vaderland" and was built in 1872. Since that time the Palmers Company had built a large number of oil-tank steamers, and he might mention what he believed was an interesting fact, that no tanker built by their firm had ever been lost at sea. They had, of course, experienced the usual vicissitudes of fortune, but they were all on the seas that day bringing profit to their owners, and he was sure those present would join with him in wishing that the vessels they had built for the Eagle Oil Company would enjoy the same long life and prosperity.

He was glad to say they had received a fair share of the orders for that class of tonnage which owners placed so freely during the past year or two. Within the last twelve months they had put into the water oil-tank tonnage representing over 70,000 tons deadweight carrying, while he was glad to say they had other tank tonnage on the stocks at Jarrow and Hebburn.

After giving various details concerning the "San Melito," the chairman concluded by wishing success to the s.s. "San Melito" and the prosperity of the great company that she was owned by, and he asked them to drink to their long and continued success.

Captain Godfrey-Faussett, in acknowledging the toast on behalf of the Eagle Oil Transport Company, Ltd., said that, like the chairman and the guests, he trusted that the "San Melito" would have a prosperous career. He desired to thank Mr. Richie, Mr. Scott Russell, and the other representatives of Messrs. Palmers, for the hospitality they had shown, and inasmuch as the "San Melito" was the last ship which Messrs. Palmer's were for the present constructing for the Eagle Company, he desired to personally thank them for the many kindnesses they had shown to him during his various visits to the yards. He asked the company present to drink long life and prosperity to the Palmers Shipbuilding Company. He had, however, a pleasing duty to perform before submitting that toast, and it was, on behalf of the Eagle Oil Transport Company, to present to Lady Murray a silver model of an Elizabethan ship, which gift he hoped would serve as a reminder of an interesting ceremony. On behalf of the chairman and his co-directors of the Eagle Oil Transport Company, he also thanked her ladyship for having travelled from London to perform the christening ceremony.

The "San Melito" gracefully takes the Water.

Lady Murray, in accepting the gift, assured the company that she was quite at a loss to in any way express her great thanks for all the kindness, the honour, and the generosity which had been showered upon her that day. She could only ask them to believe she was speaking nothing but the truth when she said that that was one of the most memorable and most interesting days of her whole life. It had long been one of her secret ambitions—and she had very few—to take part in the launching ceremony of a great ship, and she was thankful that she had never confided that ambition to anyone. The invitation to christen the "San Melito" had been unsought. It was through the kindness of the Eagle Oil Transport Company, with which Lord Murray and herself were proud to be associated through Lord Murray's connection with Lord Cowdray's great firm, that she had the great honour of being among them that day, while the fact that the ship had been built in Messrs. Palmers' historic yards enhanced that day's ceremony a hundredfold. She could, therefore, only express her deep gratitude for the honour bestowed upon her that day.

Her ladyship, continuing, said she did not know how to thank the directors of the Eagle Company sufficiently for their beautiful gift, but she would ask Captain Godfrey-Faussett to convey her sincere thanks to the chairman of the company and the other directors for the memento. She could assure them she needed no gift to commemorate that day, yet she would treasure the memento of that day's great occasion as one of her most valued possessions. It was an education and a revelation to anyone to visit the great shipbuilding yards on the Tyne for the first time and to see one of those great pulses of their national industry which had put them in the forefront of the nations of the world. Lady Murray proceeded to express the great regrets of Lord Murray, who could not be present at that day's ceremony owing to his being detained in London; he had, however, asked her to express to Messrs. Palmers his keen disappointment in not being able to accept their kind invitation.

Concluding, her ladyship said, she desired particularly to associate herself with the toast of success to the "San Melito" for she would always look upon herself as being the proud god-mother of the great ship. She wished long life and prosperity to the "San Melito," to her builders and her owners.

Mr. Broadhurst (secretary of the Palmers Company), said the directors and staff of the builders greatly appreciated the honour conferred upon them that day by the presence of Lady Murray, and they were pleased to hear that her ladyship's visit had been interesting and enjoyable. On behalf of the directors of the Palmers Company, he asked Lady Murray to accept a small souvenir of that day's proceedings in the shape of a silver gilt and suitably-inscribed fruit stand.

In accepting the gift, Lady Murray said she could only reiterate her grateful thanks. She would treasure the gift as a memento of an interesting link which had that day been formed with the good ship "San Melito." She would never forget the happy associations with her first christening ceremony.

Mr. Gowan (managing director of Palmers) then thanked the company for the toast of the firm's continued prosperity, and he especially thanked Lady Murray for her interesting appreciation of the work which went on in those yards—work which was one of the staple industries of the Tyne.

## ROUMANIAN PETROLEUM EXPORT TRADE.

### A Review of Operations during 1913.

THE total exports of Roumanian products during 1913 amounted to 1,036,446 tons, as against 846,423 tons exported during the preceding year, thus showing an increase of 190,023 tons, or 22½ per cent. This total would have been considerably larger but for the disturbances which entirely interrupted the transport from the refineries to Constantza during about two months, and thus restricted the exports abroad for several months after.

This considerable increase in the exports has been realised by means of the large stocks of residuals and gas oil accumulated in the refineries towards the end of the preceding year. On January 1st, 1913, there were in the refineries stocks of 201,743 tons of residuals and 25,397 tons of gas oil, and on December 31st, 1913, of the accumulated stocks there were left but 62,470 tons of residuals and 17,348 tons of gas oil. The following table shows the exportation of various products during the year as against those of the preceding year :—

| | 1913. Tons. | 1912. Tons. |
|---|---|---|
| Crude oil ... ... | 28,622 ... | 27,498 |
| Residuals ... ... | 341,912 ... | 283,954 |
| Lubricating oil ... | 9,543 .. | 7,351 |
| Kerosene ... ... | 418,622 ... | 353,563 |
| Benzine ... ... | 237,168 ... | 173,817 |
| Paraffin ... ... | 579 | 600 |
| Total ... | 1,036,446 ... | 846,423 |

In comparing the total exports with the figure representing the production of crude oil, we notice that the proportion of the products exported has again increased, viz., 56 per cent., as against 47 per cent. in 1912, 44 per cent. in 1911, and 43 per cent. in 1910. The following table shows the percentage of the exports of various products in the total exports :—

| | 1913. Per cent. | 1912. Per cent. |
|---|---|---|
| Kerosene ... ... ... | 40·4 ... | 41·8 |
| Residuals ... ... ... | 33·0 ... | 33·5 |
| Benzine ... ... ... | 22·9 ... | 20·5 |
| Crude oil ... ... ... | 2·7 ... | 3·2 |
| Lubricating oil and paraffin... | 1·0 ... | 1·0 |
| Total ... ... | 100·0 | 100·0 |

The exports of the main products to the various countries are shown in the following table :—

| | Residuals. Tons. | Kerosene. Tons. | Crude and Refined Benzine. Tons. |
|---|---|---|---|
| Germany ... | 17,690 | 31,708 | 70,952 |
| England ... ... | 112,739 | 89,972 | 30,169 |
| Austria-Hungary | 41,277 | 3,852 | 12,557 |
| Belgium ... ... | 2,584 | 19,396 | 2,444 |
| Balkan States ... | 12,797 | 68,489 | 4,051 |
| Egypt ... ... | 23,722 | 97,149 | 771 |
| France ... ... | 31,065 | 40,246 | 78,699 |
| Holland ... ... | 2,935 | 23,978 | 17,778 |
| Italy ... ... | 66,477 | 34,769 | 17,106 |
| Norway .. ... | 562 | 2,319 | 2,075 |
| Russia ... ... | 9,011 | — | — |
| Denmark ... | 12,866 | — | — |
| Other countries... | 8,187 | 6,744 | 566 |
| Total ... | 341,192 | 418,622 | 227,168 |

The above table shows that England still keeps the first place among the importers of Roumanian petroleum, showing a total import of 232,880 tons during 1913, as against 214,195 tons in 1912, thus contributing 22½ per cent. to the total exports. The second place is taken by France with 151,402 tons, as against 163,679 tons in 1912, or 15 per cent. of the total. The third place belongs to Germany with 126,295 tons, as against 84,041 tons in 1912, and with 12 per cent. of the total. The total value of products exported during 1913 can be estimated at the figure of over 100,000,000 fcs. as against 60,000,000 fcs. in 1912.

## THE ROUMANIAN REFINING INDUSTRY.

### A Review of Operations during 1913.

In the Roumanian refineries there were treated during 1913 1,787,245 tons, as against 1,668,389 tons in 1912, thus showing an increase of 118,856 tons, or 7·1 per cent., as against the preceding year. As the increase in the production of crude oil during the year amounted to 80,464 tons, it results that the increase in the development of the refining industry was considerably higher than the development of the crude oil production.

Out of the above quantity of treated crude oil 1,757,244 tons, or 98·32 per cent., of products were obtained, as against 1,639,743 tons, or 98·20 per cent., obtained during the preceding year. The quantities and percentages of products obtained are shown in the following table :—

| | Tons. | Percentage. |
|---|---|---|
| Benzine... | 422,019 | 23·6 |
| Kerosene | 380,074 | 21·3 |
| Lubricating oils | 48,416 | 2·7 |
| Residuals | 906,735 | 50·7 |
| Loss | — | 1·7 |
| Total | 1,757,244 | 100·0 |

Of the above products the following quantities were delivered for consumption on the interior market :—

| | |
|---|---|
| Benzine | 30,131 tons. |
| Kerosene | 51,396 ,, |
| Lubricating oils | 33,725 ,, |
| Residuals | 560.492 ,, |
| Total | 675,744 ,, |

Besides the above quantities there were consumed on the interior market 1,425 tons of paraffin. The quantity of liquid fuel consumed at the refineries amounted to 135,728 tons.

The total quantity of products in stock in the reservoirs of the refineries on December 31st, 1913, amounted to 291,978 tons. The quantities of various products left in stock at that time are shown in the following table :—

| | |
|---|---|
| Benzine | 66,746 tons. |
| Kerosene | 145,466 ,, |
| Lubricating oils | 17,349 ,, |
| Residuals | 62,417 ,, |
| Total | 291,978 ,, |

## GROSNY PRODUCTION DURING 1913.

The total production of crude oil on the Grosny oilfields during 1913 amounted to 73,659,265 poods, of which 966,296 poods were obtained on the new areas. The above production includes 5,015,740 poods of spouted oil, of which 966,296 poods were obtained on the new area.

This production shows an increase of over 8,000,000 poods as against 1912, when there were produced altogether 65,429,607 poods including 109,920 poods of spouted oil. The production during December amounted to 7,592,472 poods, of which 388,756 poods were obtained on the new area. This production includes 1,571,474 poods of spouted oil. During 1913 there were altogether in exploitation 83 plots with 352 producing wells, the average depth of which at the end of the year was 1,798 ft. Altogether there were in work during the year 520 wells on the old area and 34 on the new area. Of this number 116 were in boring and deepening, 9 in trial baling, 50 in repair and 93 inactive.

◆

**A New Pumping Device.** — Californian producers are interested in the installation of a new pumping device which has been put into operation on a lease of the Home Oil Company in the Whittier district. It is claimed that the new device will keep the hole free from sand, separate the gas from the oil, and extract one gallon of gasoline from every barrel of crude without lowering the grade of the oil.

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## SITUATIONS WANTED.

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# The Independent Refineries of the United States.

## A COMPREHENSIVE LIST.

Considerable interest has been aroused throughout the United States on the suggestion of oil fuel for the American Navy, and inasmuch as the suggestion has been put forward that the Government itself should refine and transport its own oil, it is interesting to note that there are about 130 independent oil refineries in the States willing and ready to undertake any contracts which the Government may desire to place.

The idea behind those who support the plea for the Government entering the oil refining and transporting business is that by this means it will be able to secure cheap oil for its varied fuel needs, but surely it cannot be argued that such a policy would be sound in the face of there being so many competitive refineries already waiting for business.

The following list of refineries has been published by the National Petroleum Association, with a few names added since the list was compiled, and is very informative, showing as it does that the suggestion so frequently made that there is no competition in the oil-refining industry of the United States cannot be taken seriously.

In Pennsylvania there are 38 independent refineries, as under: American Oil Works, Ltd.; Beaver Refining Company; Bessemer Refining Company; Conewango Refining Company; Continental Refining Company; Cornplanter Refining Company; Crystal Oil Works; Daugherty & Son; Emery Manufacturing Company; Emleton Refining Company; Empire Oil Works; Freedom Oil Works; Germania Refining Company; Glade Oil Works; High Grade Refining Company; Island Petroleum Company; Independent Refining Company; Kendall Refining Company; Lake Carriers Oil Company; Millers Sons Company; Mutual Refining Company; Penn Refining Company; Pittsburgh Oil Refining Company; Pure Oil Company; Seneca Oil Works; Levi Smith, Ltd.; Sun Oil Company; Starlight Refining Company; Superior Oil Works, Ltd.; Tiona Refining Company; Titusville Oil Works; United Refining Company; Wilburine Refining Company; Waverley Oil Works, Ltd.; Wilburne Oil Works, Ltd.; Warren Refining Company; Pennsylvania Paraffine Works, and Canfield Oil Company. These are all classed as independent concerns, and have a rated capacity of 10,483,150 barrels a year. Then, in addition to the above, there are refineries classed as Standard at Point Breeze, Franklin and Pittsburgh, Pa., with a capacity of 13,000,000 barrels.

In Ohio there are the Canfield Oil Company; Craig Oil Company; Great Western Oil Company; National Refining Company (two plants); Paragon Refining Company, and the Sun Oil Company. The capacity of these seven refineries is 1,752,000 barrels. The Standard has, also, refineries at Cleveland and Lima, O., and Whiting, Ind., with a rated capacity of 10,951,718 barrels.

In Kansas and Oklahoma there are 27 refineries reported, with more building and contemplated. The list for these two States is as follows: Petroleum Products Company; National Refining Company; Chanute Refining Company; Great Western Refining Company; Kansas Co-operative Refining Company; Kansas Oil Refining Company; Kanotex Refining Company; Uncle Sam Oil Company (three plants); Webster Refining Company (two plants); Cudahy Refining Company; The Texas Company; Chelsea Refining Company; Muskogee Refining Company; Oklahoma Refining Company; American Refining Company; Indiahoma Refining Company; Sapulpa Refining Company; Southwestern Refining Company; Milliken Refining Company (two plants); Merchants Refining Company; Constantin Refining Company; Pierce Oil Corporation; Phœnix Refining Company; Cosden Refining Company. The capacity of these refineries of Kansas and Oklahoma is estimated at 12,000,000 barrels. The Standard refineries in Kansas and Missouri are estimated to have a refining capacity of over 3,000,000 barrels.

Illinois is credited with the Indian Refining Company; Central Refining Company; Leader Oil Company, and the Robinson Refining Company, among the independents, the capacity being given as 2,000,000 barrels. The Wood River Works at East Alton, Ill., are supposed to have a capacity of 8,000,000 barrels.

Texas has the Orange Oil Refining Company; Gulf Refining Company; The Texas Company; Pierce-Fordyce Oil Association, and Climax Refining Company, classed as independents, with a capacity of 25,000,000 barrels, while the other companies of the State are rated at about 6,000,000 barrels per annum.

Three independent refineries in Louisiana, with four plants, have a capacity of 600,000 barrels; while the Standard's Baston Rouge refinery is given an estimate of 4,000,000 barrels.

The Binghampton Refining Company, Columbia Refining Company, and Wellsville Refining Company represent the 800,000 barrels capacity credited to the independent refineries in New York State, with the Tidewater's 3,500,000-barrel capacity in New Jersey. The standard is given a credit of about 27,000,000 barrels yearly in the same States and Maryland.

In Wyoming there are several plants, the capacity of which is unknown.

California has 37 independent plants (controlled by 32 companies), with a capacity of 13,000,000 barrels per annum. The list is as follows: Amalgamated Oil Company; Asphaltum and Oil Refining Company; Atlas Oil Refining Company; Barber Asphalt Paving Company; British California Oil Company; Densmore-Stabler Company; Hercules Oil Refining Company; Southern Refining Company; Union Consolidated Refining Company; National Refining Company; Buckeye Refining Company; California Consolidated Fields Company; Fresno Oil Company; Liquid Asphalt Company; Eastern Consolidated Oil Company; Graciosa Oil Company; King Keystone Refining Company (three plants); National Oil and Manufacturing Company (two plants); Pacific Oil Transportation Company; Paraffine Paint Company; Producers Refining Company; Sunset Oil Refining Company; Union Oil Company (two plants); Vulcan Oil Refining Company; Western Oil Refining Company; Pacific States Refining Company; Prutzman Refining Company; Monarch Oil Refining Company (two plants); Jewett Refining Company, and the Ensign Baker Refining Company.

The Standard Refineries in California have a capacity of 8,000,000 barrels per annum.

# MISCELLANEA.

## LAUNCH OF THE "CASSIS."

The Greenock and Grangemouth Dockyard Company recently launched from their Greenock yard the oil-tank steamer "Cassis," which they have built to the order of the Anglo-Saxon Petroleum Company, London. The dimensions of the vessel are :—Length, 400 ft. ; breadth, 52 ft. 9 in. ; depth, 29 ft. 3 in. ; and carrying capacity, 7,000 tons on a shallow draft. The new steamer is capable of carrying all kinds of oil, from benzine to the heaviest grade, and has in all twenty-four oil-tight compartments. She has been built on the Isherwood system to the highest class at Lloyd's, but her scantlings are much in excess of those required by that society, in order to enable her to withstand stormy weather. She is fitted with cellular double bottom under the machinery and boilers, which are placed aft. The pump room is fitted at the after end of the bridge, and contains two sets of powerful pumps, capable of pumping from either side of the ship and discharging ashore from either side or over the stern. Accommodation for officers is fitted amidships and for engineers in the poop. The vessel is steam-heated throughout, and is also fitted with steaming-out pipes in the oil tanks. This is the third oil-tank vessel which the builders have constructed on the Isherwood system. Machinery will be supplied by Messrs. John G. Kincaid & Co., Greenock. During construction the vessel has been superintended by Mr. Comar, consulting engineer to the owners. The naming ceremony was performed by Miss Millar, daughter of the managing director of the builders' firm.

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## DETAILS OF GROSNY PRODUCTION DURING DECEMBER.

The following table gives the details of production of petroleum on the Grosny fields, together with the number of productive borings and the new depths bored during the month :—

| Firms. | Number of Plots. | Number of Wells. In Exploitation. | In Boring and Deepening. | Total (in poods). | New Boring (feet). |
|---|---|---|---|---|---|
| Akhverdoff Company ... ... | 9 | 72 | 10 | 2,558,700 | 616 |
| Spies Company ... ... ... | 27 | 54 | 19 | 1,241,940 | 2,912 |
| Russian Standard ... ... ... | 5 | 18 | 3 | 392,130 | 462 |
| Wishaw ... ... ... ... | 3 | 21 | 2 | 460,440 | 249 |
| Putiloff ... ... ... ... | 6 | 13 | 12 | 271,400 | 1,106 |
| North Caucasian Company .. | 8 | 26 | 21 | 1,455,850 | 5,348 |
| Tcheleken-Daghestan Company ... | 11 | 22 | 15 | 217,590 | 2,009 |
| Anglo-Russian Maximoff Company ... ... ... ... | 2 | 19 | 4 | 161,000 | 245 |
| Moscow Petroleum Company ... | 1 | 8 | 3 | 86,350 | 63 |
| Caspian & Black Sea Company ... | 2 | 4 | — | 25,080 | — |
| St. Petersburg Petroleum Company | 5 | 11 | 4 | 16,016 | 224 |
| Anglo-Terski Petroleum Company | — | — | — | — | — |
| Skhirtladze ... ... ... ... | 9 | 19 | 19 | 234,300 | 3,031 |
| Tikhonisroff ... ... ... | 1 | 7 | 3 | 81,350 | 581 |
| Belozerski ... ... ... ... | 1 | 1 | 1 | 1,540 | 210 |
| Totals ... ... | 90 | 295 | 111 | 7,203,716* | 17,056 |

* Including 608.920 poods of spouted oil.

## AMERICAN EXPORTS OF PARAFFIN WAX DURING 1913.

The exports of paraffin wax from America during 1913 (compared with the figures for the previous two years) are given in the following table, the details being in pounds :—

| | 1911. Pounds. | 1912. Pounds. | 1913. Pounds. |
|---|---|---|---|
| Germany ... ... ... | 10,878,329 | 16,445,248 | 10,130,410 |
| Italy ... ... ... | 18,346,993 | 28,472,980 | 17,364,622 |
| Spain ... ... ... | 5,433,186 | 7,357,672 | 5,987,241 |
| United Kingdom .. ... | 91,864,175 | 135,060,336 | 95,755,143 |
| Other European countries | 20,472,229 | 26,146,859 | 16,739,654 |
| Mexico ... ... ... | 13,322,431 | 20,019,178 | 20,914,372 |
| Japan ... ... .. | 14,678,943 | 15,673,336 | 9,683,862 |
| Africa .. ... ... | 12,815,680 | 9,046,977 | 28,347,240 |
| Other countries... ... | 26,206,371 | 36,368,065 | 31,124,425 |
| Totals ... ... | 214,018,337 | 294,590,651 | 236,046,369 |
| Values ... ... | $7,047,856 | $9,602,758 | $8,176,831 |

◆

## GALICIAN PETROLEUM PRODUCTION DURING JANUARY.

The production of crude oil on the Galician oilfields during January was as follows :—Tustanowice, 53,210 tons ; Boryslaw, 17,950 tons ; Mraznica, 162 tons ; and casual oil, 473 tons ; so that the total production on these fields during the month amounted to 71,795 tons, as against 71,890 tons obtained during December. Out of the total production 17,625 tons were obtained by the English companies, 11,937 tons by the Premier Oil Company, and 34,140 tons by the Austrian refiners. The wells belonging to the German companies have yielded 5,782 tons, those belonging to the French companies 533 tons and the Austrian enterprises 13,243 tons. The production at Schnodica amounted to 2,900 tons and Uricz 520 tons. The exports from Boryslaw station during the month amounted to 76,300 tons.

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## ROUMANIAN PETROLEUM PRODUCTION DURING JANUARY.

The production of crude oil on the Roumanian oilfields during January amounted to about 141,000 tons, as against 152,000 tons obtained during the preceding month, thus showing a decrease of 11,000 tons. The production of the principal firms was as follows :—

| | Tons. |
|---|---|
| Romana-Americana ... ... ... | 35,586 |
| Astra-Romana ... ... ... ... | 31,588 |
| Steaua-Romana ... ... ... | 29,786 |
| Colombia ... ... ... ... | 3,697 |
| Concordia ... ... ... | 5,902 |
| Orion ... ... ... ... ... | 6,236 |
| Roumanian Consolidated Oilfields, Ltd. ... ... ... ... ... | 4,965 |
| International ... ... ... ... | 4,469 |
| Trajan Roumanian Oil Company ... | 1,373 |
| Aquila Franco-Romana ... ... | 1,784 |
| Alpha ... ... ... ... ... | 1,707 |
| Nafta ... ... ... ... ... | 3,238 |
| B. Margulies ... ... ... ... | 1,300 |

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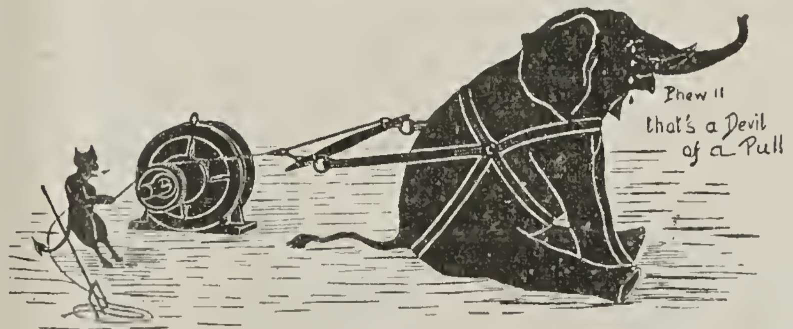
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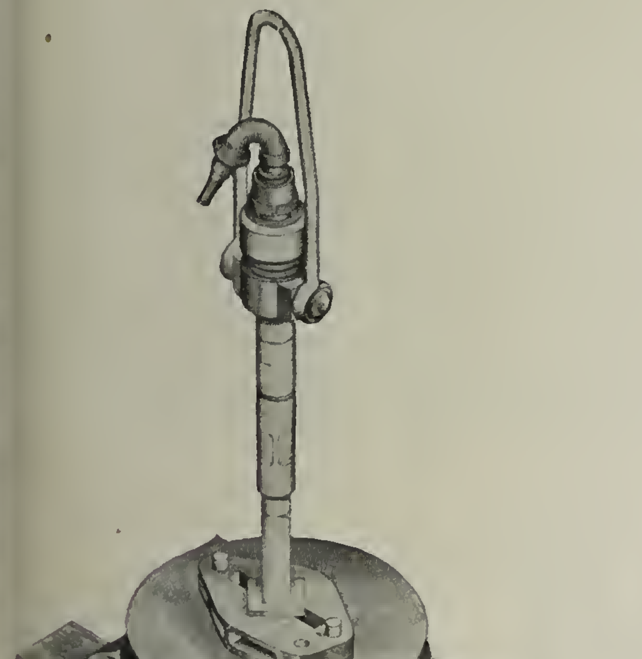

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 13/3-14/3 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1-1\frac{1}{8}$ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319,181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 32/9-33/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 38/3-39/0 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}-\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 22/6-23/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/9-4/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}-1\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{32}-5\frac{3}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{9}{16}-10\frac{13}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/6-23/0 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 711 | 713 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,150 | 3,175 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 994 | 997 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,250 | 19,350 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,008 | 1,010 |
| Russian Naphtha Society ... ... | 100 | 230 | 231 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 230 | 231 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 34/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 87/9 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/0 |
| Mexican Eagle Oil, Ltd.. Non. Cum. Pref. ... | $8,500,000 | $10 | 40/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 35/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 25/0 |
| Premier Oil Ord.. ... ... ... | 2,300,000 | £1 | $4/7\frac{1}{2}$ |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{1}{4}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 69/0 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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**PETROLEUM REVIEW,**
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, MARCH 14TH, 1914.

## MAIKOP: ITS PRODUCTION AND PROSPECTS.

The official figures of the production of crude oil in the Maikop fields during the past year and which are obtained from the official Maikop Kuban Department, are in themselves remarkable. Hitherto, many critics have spoken of the Maikop oilfields as being a failure, but the details of the number of wells under exploitation, and the quantity of crude oil produced per well, is in our opinion a remarkable testimony of the importance of Maikop as an oilfield.

Take for example plot No. 488 upon which there are five wells, with a total production of 824,447 poods for last year, or an average of 164,889 poods per well per annum, while on plot No. 533, one well has produced 103,360 poods last year. Again, on plot No. 489 with five wells in production, 931,921 poods were produced last year, or an average of 186,384 poods per well per annum.

If we compare the above figures of yearly production of these wells with those of the wells of the richest field in Russia, *ie.*, Baku, namely, Balachani, or even Saboontchi, we cannot but be impressed with the splendid results so far achieved in Maikop.

The average production of the Balachani district for last year was approximately 72,000 poods per well ; in the celebrated Saboontchi district it was only 144,000 poods per well, and in the most richest part of Baku, namely, Romany district, it was 255,600 poods per well per year. Thus we see that the average production from the principal wells in the Maikop oilfields is more than that for the Balachani and Saboontchi districts ; but if we take into consideration the depth from which the oil is produced in the Maikop fields, which is much less than that in the Baku fields, in the former case something like 700 to 800 ft., while in addition the quality of the crude oil produced in Maikop is considerably higher than that of Baku, it is quite evident, as we have maintained all along, the attitude of the British investor toward Maikop, in taking a hopeless view of the situation, is not in any way justified by the results.

There is also one remarkable feature of the Maikop oilfields, and that is, that even now, after four years of exploitation of the upper strata at a depth of from only 300 to 500 ft., the production last year from these shallow wells was 2,788,431 poods from three claims only.

We must recollect that, although, the shallow wells look formidable in number, yet their cost is very small —about £500 to £600 per well, against £10,000 to £15,000 in Baku—and the time occupied in completing them is between three to six weeks, instead of eighteen to twenty-seven months as in Baku. This in itself is great evidence of the value of Maikop claims.

Then, again, if we take the value of the otvod No. 3 of the Black Sea Oilfields, Ltd., we arrive at the conclusion that the intrinsic value of this plot, taking it at a valuation of five years only, should be £300,000. In spite of this, however, and without taking into consideration the other claims owned by the company, and their various interests in other companies, the total value of the company's shares, both preference and ordinary on the market represents somewhere about £80,000 only,

The official figures of the output during 1913 are as follows :—

| | | No. of Wells. | Poods. |
|---|---|---|---|
| From otvod No. 3 of Black Sea Oilfields, Ltd. | | 44 | 1,722,662 |
| Plot No. 488 | Maikop Premier Oil Syndicate, Ltd. | 3 | 396,193 |
| ,, 489 | British Maikop Oil Company, Ltd. | 5 | 931.921 |
| | Maikop Victory Oil Company, Ltd. | 25 | 651,476 |
| ,, 490 | Maikop Combine, Ltd. | 49 | 414.293 |
| ,, 488 | Spies Petroleum Company, Ltd. | 2 | 428,254 |
| ,, 533 | Ditto | 1 | 103,360 |
| ,, 108 | Deep Drilling Company | 1 | 27,826 |
| ,, 513 | Maikop Enem Company | – | 42,151 |
| ,, 411 | London Maikop Corporation, Ltd. | 2 | 18,261 |
| ,, 389 | Andreis... | 2 | 17,183 |
| ,, 149 | Black Sea Oilfields, Ltd. | 4 | 14,099 |
| Khadijy | Ditto | – | 850 |
| Plot No. 513 | Black Sea Kuban Syndicate, Ltd. | 1 | 1,164 |
| Khadijy | Black Sea Oilfields, Ltd. | 2 | 10,554 |
| Plot No. 490 | British Maikop Oil Company, Ltd. | 1 | 190 |
| ,, 120 | Black Sea Oilfields, Ltd. | 1 | 224 |
| ,, 555 | Kolchida Company | 1 | 5,179 |
| ,, 123 | Perhovsky Khadijy | 2 | 2,070 |
| ,, 134 | Maikop Valley Oil Company, Ltd. | 1 | 4,022 |
| ,, 535 | Kolchida Company | – | 44 |
| ,, 554 | Verbitcheff | 1 | 8,341 |
| ,, 410 | Andreis... | 1 | 1,181 |
| ,, 511 | Verbitcheff | – | 60 |
| ,, 512 | Karapetoff | – | 150 |
| ,, 514 | Maikop Premier Oil Syndicate | 1 | 83 |
| Various small trial borings | | – | 509 |
| | Total for the year | | 4,802,300 |

As to the prospects of Maikop, it is certain that the present pessimistic opinions in regard to this field cannot long continue, but that popular feeling, supported by incontrovertible fact, will at an early date recognise that Maikop as an oilfield has come to stay, and that if only energetically and seriously developed, it will amply live up to the high standard which was prophesied for it by some of the greatest geologists and practical oil men in the boom days of 1910.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MARCH 9th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. | Since Mar. 2. | From Jan. 1. |
| Belgium | — | — | 13,700 | 121.710 | — | — | — | — | — | 32,220 | — | — | — | 680 | 13,700 | 154,610 |
| Canada | — | — | — | 4,400 | — | 18,380 | — | — | — | — | — | — | — | — | — | 22.780 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 7,107,800 | — | — | — | — | — | 7,107.800 |
| Germany | — | 25,050 | 24.160 | 566 420 | — | — | — | — | — | — | — | — | — | — | 24,160 | 591.470 |
| Holland | — | — | — | 2,680 | — | — | — | 55,000 | 60,000 | 1,597,780 | — | — | — | 590 | 60,000 | 1,656,050 |
| Mexico | — | 2,238,130 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,580.450 | — | — | — | 5,584,550 |
| Roumania | 1,816,600 | 3,814.390 | — | — | — | 875,000 | — | — | — | 983.380 | — | 1,207,910 | — | — | 1,816.600 | 6,880.680 |
| Russia | — | 1,502,000 | 520 | 636,180 | — | — | — | — | — | 3,202 880 | — | — | — | — | 520 | 5,341,060 |
| U.S.A. | 2,229,030 | 23,815,160 | 291,140 | 8,361,580 | 11.200 | 24,680 | 2,837,520 | 18,800,890 | 1,388,810 | 2,600,410 | — | 1,728,270 | 6,710 | 119,700 | 6,764,410 | 55.450,690 |
| Other Countries | — | — | 15,920 | 73,900 | — | — | — | — | — | — | — | 1,030 | — | — | 15,920 | 74.930 |
| | 4,045,630 | 31,394,730 | 345,440 | 9.778,670 | 11,200 | 918,060 | 2,837,520 | 18,855,890 | 1,448,810 | 16,278,640 | — | 5,517,660 | 6,710 | 120,970 | 8,695,310 | 82,864,620 |

## THE FUNERAL OF THE LATE MR. ALFRED SUART

On Wednesday last, at Chigwell cemetery, the remains of the late Mr. Alfred Suart, who, as recorded in last week's Review, died on the 5th inst., in a London Nursing Home, were laid to rest in the family vault, amid manifestations of widespread and sincere regret.

The body of the deceased was conveyed from Paddington after the usual service upon a motor hearse direct by road to Chigwell; but the numerous friends of the deceased gentleman travelled by train from Liverpool Street, the platform, prior to the departure of the train, being crowded by representatives of the petroleum and oil transport trade, all of whom through years of close associationship held the deceased in high esteem.

The hearse was entirely surrounded by wreaths from Mr. Suart's numerous and sympathising friends, among the chief contributors being Mr. John and Mrs. Rose Suart, Miss Dorothy Suart, General and Mrs. Suart, Mr. E. Wallace Lamport, "Kitty, Cyril, and Violet," Mr. John Carlisle, Miss Peggy Carlisle, Mr. and Mrs. Tabor Brooks, "Nina, Monty, and Baby," Mr. and Mrs. Gerrard Gould, "Little Grand and Diana," Miss Carlisle, Mr. and Mrs. Arthur Hamilton King, "Loving Friends at Burton Cray," Lady Bagot, Lord Fairfax, Sir Thomas and Lady Bowring, Mr. and Mrs. Frank Cooper, Captain and Mrs. Mignon, Mr. and Mrs. George W. Yardley, Mrs. Roma Detmold, Mr. Kish Schlesinger, Major and Mrs. Fisher, Sir Boverton Redwood, Bart., Mr. and Mrs. Ernest Courage, Mr. Sidney Braithwaite, Captain Frank R. Whitson, Mr. J. Bardach, Messrs. Hartley, Foulger, and M. M. Bayley, Colonel and Mrs. Stock, Mr. C. H. F. Christie, Mr. John Eyre, Mr. Percy J. Bullivant, Mr. and Mrs. Jack Belville, General G. E. Bellville, Mr. Frank A. Bellville, Mrs. Bellville, Mr. A. G. Parker, Mr. and Mrs. C. H. Dixon, "Members of the Bath Club," "All from Burton Overy Rectory," Mr. and Mrs. Albert Boswell, Mrs. H. C. Watson, Jane and Agnes Watson, Mrs. Sanders, Major R. M. Sanders, Viscount Deerhurst, Captain and Mrs. Gerald Foljambe, Oliver Haig, Captain C. Ward Jackson.

The remains were interred in the family vault in which Mr. Suart's father and mother were buried thirty years ago. The funeral arrangements were carried out by Messrs. Mills & Sons, Ltd., of Paddington, the coffin bearing the inscription, "Alfred Patrick Rose Suart. Died March 5th, 1914. Aged 58 years."

## THE OPERATIONS OF THE STEAUA - ROMANA.

The Steaua-Romana has recently distributed to its shareholders for the year closed April 30th, 1913, a dividend of 10 per cent. on the capital of 50,000,000 francs, as against that of 9 per cent. on 40,000,000 francs, in 1911-12. The gross profits for the year amounted to 17,477,164 francs, as against 14,567,173 francs for the preceding year. Out of the former figure 2,649,897 francs represent general expenses, 7,087,759 francs ordinary amortisation, and 2,000,000 francs extraordinary amortisation. The net profits amounted to 5,880,579 francs, as against 4,238,496 francs obtained during the preceding year, out of which 5,000,000 francs, as against 3,600,000 francs, during the preceding year have been paid out in dividends.

The crude oil treated by the Steaua-Romana during the reported year amounted to 501,808 tons, as against 446,427 tons treated the preceding year, while the company's production of crude oil amounted to 403,008 tons, as against 420,767 tons during the preceding year, thus showing a decrease of 17,759 tons, due to the difficulties of transport.

In September last year the Steaua - Romana decided to increase its capital from 50,000,000 to 100,000,000 francs in order to take a larger participation in the European Petroleum Union, and generally to develop all its enterprises.

At present the Steaua-Romana is engaged in organising its sales of benzine in Germany, for which purpose the company has built a tanker of the capacity of 4,000 tons, while another of the capacity of 6,500 tons is in course of construction. The Steaua-Romana has recently concluded a contract with the Servian Monopoly for deliveries of kerosene during the next five years.

◆

## LATEST COMPANY REGISTRATIONS.

### THE AIN ZEFT OIL COMPANY, LTD.

Registered on March 6th, by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital £34,000, in £1 shares. Objects: To acquire any petroleum, naphthaline, or oil-bearing lands in Algeria or elsewhere, and to carry on the business of dealers in and refiners of petroleum, and other mineral oils, ozokerite, naphthaline and other similar substances, and the products thereof, etc. Minimum cash subscription, seven shares. Signatories include R. Howley, 242, Grove Green Road, Leytonstone, Essex; R. Dolby, 19, Park View Crescent, New Southgate, N.; E. T. Church, Clapham, S.W.; W. Yeoman, 111, East Dulwich Grove, East Dulwich, S.E.; J. W. Polland, 6, Upper Wall, Hammersmith, W.; and W. H. Walford, 33, Kimberley Avenue, Seven Kings, Ilford. First directors (who are to number not less than three nor more than seven) are to be appointed by the signatories. Qualification, £1.

### CAUCASIAN PETROLEUM SYNDICATE, LTD.

Registered on March 9th, by Swepstone, Stone, Barber & Ellis, 9, St. Helens Place, E.C. Capital £100, in £1 shares. Objects: To acquire oil-bearing lands, etc., and to carry on the business indicated by the title. Signatories: H. Perry, 8, Park Grove Road, Leytonstone, N.E.; A. W. Lawrence, 4, Dorian Villas, Sunbury, Middlesex; and W. H. Butterfield, 17, New Road, Crouch End, N. First directors (who are to number not less than two nor more than five) are not yet appointed. Private company.

# Relation of Oil Deposits to Geo-Tectonic Structure.

By Mr. E. H. PASCOE, M.A., in his Treatise, "The Oilfields of Burma."

(*Concluded from page* 244.)

THE actual process by which oil was produced from organic matter it is not proposed to discuss. The following are the principal summarised conclusions for which evidence has been brought forward :—

(i) That the source of the oil was not abyssal, but was in the oil-strata themselves.

(ii) That there is a connection between the formation of petroleum and the salt so universally met with and that the former probably took place under saline conditions.

(iii) That there is some connection between the occurrence of coal and of oil, the former occurring where fresher water conditions prevailed, i.e., round the margin of the Pegu gulf, especially in the north, or in the freshwater Irrawadi sandstone lying above the petroliferous beds, in basins containing organic matter exposed to oxidation.

(iv) That since the source was in sedimentary strata, and from other considerations, it was of an organic nature.

(v) That with the exception of a small lateral concentrating movement due to the mobility and low specific gravity, there has been no migration, but the petroleum has been formed *in situ*.

(vi) That hydrostatic pressure is sufficient to account primarily for the gas pressure observable, and that although it is not impossible that in some cases both gas and oil may have been formed from the "Ur-material" in hermetically sealed pockets of sand it is far more probable that the sands were more continuous and that if any of the oil-pools have been sealed off, they were isolated in this way by the sands becoming locally impervious.

Towards the end of Pegu times as the gulf became more and more silted up, its surface would be cut up into irregular salt lakes and marshes. Interspersed among these would-be channels of almost fresh water, in the back-waters of which flourished the small crowded colonies of *Batissæ* which we find so perfectly preserved in the topmost Pegu to-day. These channels draining southwards would either give rise to erosion of an extremely local character especially when cutting through any of the older transverse anticlines, or would deposit sediments very similar to the Irrawadian of the next period, mixed possibly with a few marine shells. Such sediments we find in the northern parts of the Yenangyat area, and in the Salin, Prome, and Myanaung areas : they would be more likely to occur near the shores of the gulf. The silting process would naturally commence in the north and may have done so in fairly early Pegu times, proceeding southwards in échelon arrangement. Attention has already been called to the narrowing southwards of the area covered by Irrawadian deposits. This suggests a previous shallowing of the Pegu gulf here due to the rise of the Pegu Yomas, a supposition which is confirmed by the occurrence of thick masses of coarse beds in the uppermost Pegu of this neighbourhood (Prome and Myanaung areas). Towards the end of Pegu times, therefore, the gulf appears to have had a narrow outlet and may have ultimately expired in the shape of irregular salt lakes. Finally we should obtain a series of rolling uplands, exactly similar to what we have at the present day, with a red cap of lateritic soil (the "Red Bed") in process of formation wherever possible, drained by rivers which would tend to flow southwards along the geosynclines. As the rivers would by this time have increased in size and volume, there would be continued and enhanced local erosion, especially if the folding movement was proceeding simultaneously. The main river, the primitive Irrawadi, which at one time followed the course of the Chindwin and included the headwaters of the present Brahmaputra, may have been responsible for part of the missing Pegu sediments on the east flank of the Yenangyat anticline, and also for beds missing at Myaing, Kyaukwet, Pagan, Gwegyo, and Minbu, especially if these localities marked the existence of transverse folds due to the Himalayan movement. It is not unlikely that the consequent thinning of this eastern limb may have been the cause of the asymmetry of the fold. The absence of the Red Bed and basal Irrawadian east of Yenangyat is explained on the assumption that this area was occupied by an eroding river during the time that this laterite-like soil was accumulating on the dry ground. It is absent in many other places, not necessarily but possibly for the same reason. Over this undulating plain were finally spread the coarse fluviatile Irrawadian sediments derived from the Shan Plateau and Arakan hills, which had then reached a considerable height. Great fans of gravel and coarse sand spread out at the base of the hills, and were redistributed and sorted by the rivers meandering through them. That the folding movement was proceeding during Irrawadian times is shown by the somewhat abnormally rapid decrease in dip in these beds as we pass outwards from the Pegu-Irrawadian boundary in some of the anticlines, especially at Sattein. On the Pegu Yomas, which appear to have commenced to form a barrier in the gulf, for fifty miles no fossil wood is found except one or two rare pieces ; fossil wood, however, was found by Theobald in the Sittang Valley, so that a narrow and perhaps isolated belt of Irrawadi sandstone was deposited here and may have met that of the Irrawadi basin near Rangoon. The thickness of Irrawadian over the central parts of some of the larger anticlines was probably never very great, and we have seen it was probably never deposited on the Pegu Yomas. We may assume there was in the later phases sub-aërial denudation of the anticlinal crests contemporaneous with deposition in the geo-synclines, so that the continuation of movement in post-Irrawadian times would not greatly affect the surface of the plateau which we find at the present day. Some of the present "chaungs" or streams commenced to be formed at this time, and have preserved the channels they cut through the anticlinal ridges. It is very probable that oil was set free from some of the anticlines by this erosion. Outbursts of lava may have been responsible for normal faulting during the early stages of movement. On this plateau was formed the lateritic Plateau Red Earth, which is probably still being produced in places. The gravel facies may be looked upon as the product of the streams which succeeded those of the Irrawadian ; like the Red Earth, it has become ferruginised.

# AMERICAN AND ROUMANIAN NOTES.

## AMERICAN.

**Consul C. Miller,** who has been the United States Consul at Tampico, has resigned to take charge of the Texas Company's business in Mexico.

**Death of an Oil Pioneer.**—We regret to record the deccase of Mr. John H. Fairbank, of Petrolia, Canada, who was one of the irst oil producers in the old Petrolia field. Mr. Fairbank had for some years been a member of the Canadian Parliament.

**Gulf Coastal Shipments.**—The shipments of crude and refined oil from Gulf Coastal ports during January reached 2,214,000 barrels, or a decrease of nearly 120,000 barrels compared with the water movement during the preceding month.

**The Panuco District of Mexico.**—This well-known oil district in Mexico is now yielding over 75,000 barrels of oil daily, producers experiencing great difficulties in finding barges to transport the oil along the Panuco and Topila Rivers to Tampico.

**January Pipeline Report.**—The receipts of crude oil from the wells by the pipelines of Pennsylvania, West Virginia, Indiana, and Kentucky for January aggregated 2,136,532 barrels, or a daily average of 68,920 barrels. The figures are nearly 5,000 barrels per day below the runs during December.

**A New Purifying Process.**—Californian refiners are interested n the report that a Los Angeles chemist has invented a purifying process by which the lowest gravity oil is rendered as pure as paraffin-grade Pennsylvanian oil. The inventor has erected a still, nd is now demonstrating before Los Angeles refiners.

**Daily Production.**—The estimated daily production of some f the important oil-producing regions in the States is as under :—Caddo, 32,000 barrels ; Electra, 26.500 barrels ; Kansas and Oklaoma, 196,000 barrels. The daily production of fuel oil in the Gulf Coast fields is approximately 17,000 barrels, and of refinable oil ,000 barrels.

**The Prolific La Habra Valley.**—The La Habra Valley of alifornia, where the Standard Oil Company's 10,000-barrel well as kept up its production for three months, is keeping up its eputation. The Union Oil Company has recently brought in a ,000-barrel well, and the Brea Canyon Oil Company has a new 00-barrel well.

**A Good Gas Pool.**—The Moran district of Shakleford county furnishing several exceedingly good gas-producing wells, four of hich are owned by the Texas Company. These four wells yield ,000,000 cubic feet of gas per day, but the greatest well so far ruck in the locality belongs to the Corsicana Petroleum Company, nd is producing 5,000,000 cubic feet daily.

**Launch of Another Oil Tanker.**—There has recently been unched from the yards of the Union Ironworks, San Francisco, he oil tanker "Frank H. Buck," which has been constructed for the ssociated Oil Company. The new vessel is said to be the largest l carrier on the Pacific Coast flying the American flag, for it is apable of carrying 62,000 barrels of oil. Its overall length is 26 ft.

**The South Perm Oil Company.**—The net profits of this ompany for the past year amounted to $6,600,000, of which only 1,500,000 were distributed in the shape of dividends. At the end last year the company's total assets were $24,738,375, or an ncrease of over $7,000,000 compared with the figures a year preously. The company's net profits, in spite of declining producon in its territory, have been at the rate of 53 per cent.

**The Mid-West Oil Company.**—According to this company's atement for the past year, it is developing its programme at a tisfactory rate. The net profits for the year amounted to ,500,000, which, after paying the preferred stock, left an amount ual to over 36 per cent. for the common stock. The Company's finery is working at full capacity, and is handling about 10,000 rrels of oil daily. For this production the company has found a ady and favourable market.

**Standard Oil Plans.**—The Standard Oil Company of California planning extensive improvements quite apart from those already progress. The money raised by the sale of new stock to the tent of £1,000,000 is to be utilised for the construction of ditional oil tankers, for further development work on the fields, and for enlarging the refineries. In its pipeline equipment it is also making great additions, including the extension of its 12-in. pipeline from Point Richmond to the Kern River fields.

**Californian Production.**—The complete and tabulated figures of the crude oil output of the California fields during the past year have just been published. The total production was 97,866,924 barrels or nearly eight million barrels greater than the output for the previous year. The increase in percentage was 8·7 compared with the output for 1912, but the greatest increase was registered during August when the quautity was 14·5 per cent. greater than for the corresponding month a year previously. During the year only about one million barrels went into storage, the consumption having almost kept level with production.

## ROUMANIAN.

**General Production.**—The general production remains at the level of 5,000 tons a day. A great increase in the production is expected soon.

**Liquid Fuel Prices.**—Negotiations between the consumers and the refiners of oil still continue in order to establish a fixed price for liquid fuel.

**The Steaua-Romana.**—The average daily production of this company is now 934 tons, of which 423 tons are obtained at Campina and 306 tons at Policiori

**The International.**—The production of this company during February amounted to 3,672 tons, of which 3,255 tons were obtained at Gura Ocnitzei and 417 tons at Bustenari.

**Romana-Americana.**—The production of this company is on the increase and amounts to 1,270 tons a day, of which 1,220 tons are obtained at Moreni, 20 tons at Bustenari, 20 tons at Baicoi, and 10 tons at Tetzcani.

**Astra-Romana.**—The production of this company during the last week of February amounted to 8,960 tons with a daily average of 1,120 tons, of which 875 tons were obtained at Stavropolcos, 124 tons at Bana, 37 tons at Campina, and 63 tons at Filipeshti.

**Prices.**—Prices of crude oil continue to be maintained at a high level, and even the inferior types of oil are in great demand owing to the request for residuals for the interior market, as well as for abroad. The prices of products on the interior market have not changed.

**New Well of the Astra-Romana.**—The well No. 1 A.R. at Runcu struck oil on February 26th at a depth of 631 metres, now making eruptions of about 100 tons a day. Well No. 37 A.R. at Stavropolcos has entered into eruption and gave on March 5th 170 tons of crude oil.

**Exportation.**—The exportation is very active and the prices for export are satisfactory ; as there is a great demand for residuals and the Roumanian refiners not being able to satisfy these demands for the interior market, the consumers are ordering large quantities of residuals from Texas and Mexico.

**Omnium International de Petroles.**—A general meeting of this company which controls the Columbia and Alfa took place at Paris on February 26th, when a profit of 4,896,962 fcs. was declared, out of which a dividend of 50 fcs. per share was distributed to the shareholders, and 2,008,987 fcs. was transferred to the reserve fund.

**Nafta.**—The capital of this company is now 5,000,000 fcs. fully paid. In view of extensive works undertaken recently by the company at Arbanash, consisting of the deepening of several wells and the boring of eight new wells, the production of this company is expected to soon reach a total of 200 tons a day, as against 100 tons now produced daily.

**Monthly Production of the Astra-Romana.**—The total production of the Astra-Romana during February amounted to 31,249 tons, of which 24,148 tons were obtained at Stavropoleos 3,740 tons at Bana, 1,092 tons at Campina, 1,750 tons at Filipeshti 76 tons at Baicoi, 17 tons at Glodeni, and 136 tons at Runcu. The average daily production during the month amounted to 1,116 tons. The production of the company is increasing, and at present amounts to 1,250 tons a day, owing to the increase of the yield on the Moreni fields.

## BLACK SEA OIL FIELDS, LTD.

### Sale of the Refinery Approved.

On Tuesday an extraordinary general meeting of the shareholders of the Black Sea Oil Fields, Ltd., was held at Winchester House, Old Broad Street, E.C., to consider a resolution providing for the sale of the company's refinery at Shirvanskaya to the Kuban Refining Company, Ltd. Sir J. S. Harmood Banner, M.P. (Chairman of the company), presided.

The Chairman, in moving the adoption of the necessary resolution, said: "You will doubtless remember that in the course of my remarks at the annual meeting on February 10th, I explained fully the position, and the reasons which actuated your directors in recommending you to accept the offer which had been received; so I do not intend to detain you to-day by going over the same ground again. I may, however, add that having in the meantime given further time and thought to the various details of the proposed arrangement, your directors are still more of the opinion that it is in the best interest of the company that the proposals should be accepted. Under the draft agreement we are to receive £45,263, the equivalent of 430,000 roubles. One-half of this amount will be in cash, payable by instalments, and the remainder in fully-paid shares at par of the Kuban Refining Company, Ltd. These shares, which are quoted at 5s. premium, should prove an asset of very great value to our company. The Kuban Refining Company has, I find, lately paid an interim dividend of 10 per cent., and accordingly the dividends which we ought to receive on our holding will, I believe, equal, if not exceed, any probable result we might hope to make by working the refinery ourselves. Another important factor is that the cash which we are to receive will be available for carrying on the development work necessary for increasing our output of crude oil. As you are aware, owing to certain obligations under our terms of recognition in Russia, it was impossible to submit a formal resolution approving of the sale of the refinery at the recent general meeting. An informal resolution, however, was then submitted and carried unanimously. I am sorry our managing director, Mr. George Tweedy, is unable to be present to-day. He is now at Maikop working in your interest.

Mr. J. H. Renton seconded the motion, which was unanimously adopted.

## DEVELOPMENTS IN THE OILFIELDS.

### LATEST PROGRESS REPORTS.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production (week ended 7th instant), 186 tons.

**Traian Roumanian Petroleum Company, Ltd.**—Production (week ended 7th instant), 442 tons.

**Anglo-Egyptian Oilfields, Ltd.**—Gemsah production (week ended March 8th), 581 tons (previous week 578 tons).

**British Colonial Petroleum Company, Ltd.**—The manager of the property being acquired reports: "Depth of well, 390 metres. Great quantities of gas."

**United British of Trinidad.**—Production (week ended February 27th), 470 tons (five days only; two days holiday). Well No. 25 fallen off to 130 tons for five days.

**Anglo-Maikop Corporation, Ltd.**—Progress report from Krimskaya for the month ended 7th instant:—Well No. 2—Depth, 530 ft. Well No. 3—Depth, 690 ft.: cleaning cork. Well No. 7—Depth, 65 ft.

**Santa Maria Oilfields of California, Ltd.**—Production (February), 7,000 barrels. Office note: As previously stated, all wells have recently been closed down; latest advices show production at 1,900 barrels a day.

**Tampico Oil Company, Ltd.** — Progress report. Manager reports:—Borehole No. 2 north—Depth, 2,014 ft; increase, 42 ft. Formation hard white limestone. Total production last month amounted to 4,150 barrels. Stock of oil, February 28th, 24,750 barrels.

**Roumanian Consolidated Petroleum Company, Ltd.**—Production (week ended March 7th), 1,337 tons. Cablegram from Ploesti, dated March 9th:—"Moreni well No. 30 (depth 2,411 ft.)—As all indications suggest important fountain, mining authorities require that, for the safety of village (nearest house of which is about 350 ft. from well), we shall, before testing, close in lower part of the derrick hermetically and draw off gas by means of gas lines. All necessary measures in hand; hope to complete preliminary work by end of week."

GULF REFINING CO.

Refiners of Oklahoma and Texas Petroleum.

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*:: from High-grade Oklahoma Crude Oil. ::*

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Special Prices to large Jobbers and Refiners. *Correspondence Solicited.*

*General Sales Office:* FRICK BUILDING ANNEX, PITTSBURGH, Pa., U.S.A.

*European Representative:* H. E. WATSON, 10, RUE THIMONNIER, PARIS, FRANCE.

# Mr. John D. Rockefeller's Views on Trust Legislation.

## A WELL-REASONED ARGUMENT.

In the current issue of *Oildom*—a monthly journal published at Bayonne, N.J., which deals with matters affecting the Standard Oil Company — the following interesting article appears over the signature of Mr. John D. Rockefeller, upon the important subject of trust legislation.

*Question* 1.—What was the first combination in which you were interested of different establishments in the oil industry ? *Answer.*—The first combination of different establishments in the oil industry in which I was interested was the union of William Rockefeller & Co., Rockefeller & Andrews, Rockefeller & Co., S. V. Harkness and H. M. Flagler, about the year 1867.

*Question* 2.—What were the causes leading to its formation ? *Answer.*—The cause leading to its formation was the desire to unite our skill and capital in order to carry on business of some magnitude and importance in place of the small business that each separately had theretofore carried on. As time elapsed and the possibilities of the business became apparent, we found further capital necessary, obtained the required persons and capital, and organised the Standard Oil Company with a capital of $1,000,000. Later we found more capital could be utilised, and found persons with capital to interest themselves with us, and increased our capital to $3,500,000. As the business grew, and markets were obtained at home and abroad, more persons and capital were added to the business, and new corporate agencies were obtained or organised, the object being always the same, to extend our business by furnishing the best and cheapest products.

*Question* 3.—To what advantages or favours or method of management do you ascribe chiefly the success of the Standard Oil Company ? *Answer.*—I ascribe the success of the Standard to its consistent policy to make the volume of its business large through the merits and cheapness of its products. It has spared no expense in finding, securing, and utilising the best and cheapest methods of manufacture. It has sought for the best superintendents and workmen, and paid the best wages. It has not hesitated to sacrifice old machinery and old plants for new and better ones. It has placed its manufactories at the points where it could supply markets at the least expense. It has not only sought markets for its principal products, but for all possible by-products, sparing no expense in introducing them to the public. It has not hesitated to invest millions of dollars in methods for cheapening the gathering and distribution of oils by pipelines, special cars, tank steamers, and tank wagons. It has erected tank stations at every important railroad station to cheapen the storage and delivery of its products. It has spared no expense in forcing its products into the markets of the world among people civilised and uncivilised. It has had faith in American oil, and has brought together millions of money for the purpose of making it what it is, and holding its markets against the competition of Russia and all the many countries which are producers of oil and competitors against American oil.

*Question* 4.—What are, in your judgment, the chief advantages from industrial combinations—(*a*) financially to stockholders ; (*b*) to the public ? *Answer.*—All the advantages which can be derived from a co-operation of persons and aggregation of capital. Much that one man cannot do alone two can do together, and once admit the fact that co-operation, or, what is the same thing, combination, is necessary on a small scale, the limit depends solely upon the necessities of the business. Two persons in partnership may be a sufficiently large combination for a small business, but if the business grows or can be made to grow, more persons and more capital must be taken in. The business may grow so large that a partnership ceases to be a proper instrumentality for its purposes, and then a corporation becomes a necessity. In most countries, as in England, this form of industrial combination is sufficient for a business co-extensive with the parent country, but it is not so in this country. Our federal form of government, making every corporation created by a state foreign to every other state, renders it necessary for persons doing business through corporate agencies to organise corporations in some of many of the different states in which the business is located.

It is too late to argue about advantages of industrial combinations. They are a necessity. And if Americans are to have the privilege of extending their business in all the states of the Union, and into foreign countries as well, they are a necessity on a large scale. The chief advantages are : (1) Command of necessary capital. (2) Extension of limits of business. (3) Increase of number of persons interested in the business. (4) Economy in the business. (5) Benefits derived from knowledge of many persons of wide experience. (6) Power to give the public improved products at less prices and still make a profit to stockholders. (7) Permanent work and good wages for labourers.

I speak from my experience in the business with which I have been intimately connected for about forty years. Our first combination was a partnership, and afterwards a corporation in Ohio. That was sufficient for a local refining business. But if we depended solely upon local business we should have failed years ago. We were forced to extend our markets and to seek for export trade. This latter made the seaboard cities a necessary place of business, and we soon discovered that manufacturing for export could be more economically carried on at the seaboard, hence refineries at Bayonne, at Philadelphia, and Brooklyn, and necessary corporations in New Jersey, Pennsylvania, and New York.

We soon discovered, as the business grew, that the primary method of transporting oil in barrels could not last. The package often cost more than the contents, and the forests of the country were not sufficient to supply the necessary material for an extended length of time. Hence we devoted attention to other methods of transportation, adopted the pipe-line system, and found capital for pipe-line construction equal to the necessities of the business.

To operate pipelines required franchises from the states in which they were located, and consequently corporations in those states, just as railroads running through different states are forced to operate under different state charters. To perfect the pipe-line system of transportatiom required in the neighbourhood of fifty millions of capital. This could not be obtained or maintained without industrial combination. The entire oil business is dependent upon this pipe-line system. Without it every well would shut down and every foreign market would be closed to us.

The pipe-line system required other improvements, such as tank cars upon railroads, and finally the tank steamer. Capital had to be furnished for them and corporations created to own and operate them.

Every step taken was necessary in the business if it was to be properly developed; and only through such successive steps and by such an industrial combination in America to-day enabled to utilize the bounty which its land pours forth, and to furnish the world with the best and cheapest light ever known, receiving in return therefor from foreign lands nearly $50,000,000 per year, most of which is distributed in payment of American labour.

I have given a picture rather than a detail of the growth of one industrial combination. It is a pioneer, and its work has been of incalculable value. There are other American products besides oil for which the markets of the world can be opened, and legislators will be blind to our best industrial interests if they unduly hinder by legislation the combination of persons and capital requisite for the attainment of so desirable an end.

*Question* 5.—What are the chief disadvantages or dangers to the public arising from them? *Answer*.—The dangers are that the power conferred by combination may be abused; that combination may be formed for speculation in stocks rather than for conducting business, and that for this purpose prices may be temporarily raised instead of being lowered. These abuses are possible to a greater or less extent in all combinations, large or small, but this fact is no more of an argument against combination than the fact that steam may explode is an argument against steam. Steam is necessary, and combination is necessary, and its abuses can be minimized; otherwise our legislators must acknowledge their incapacity to deal with the most important instrument of industry. Hitherto most legislative attempts have been an effort not to control but to destroy; hence their futility.

*Question* 6.—What legislation, if any, would you suggest regarding industrial combinations? *Answer*.—First. Federal legislation under which corporations may be created and regulated, if that be possible. Second. In lieu thereof, State legislation as nearly uniform as possible encouraging combinations of persons and capital for the purpose of carrying on industries, but permitting State supervision, not of a character to hamper industries, but sufficient to prevent frauds upon the public.

## NEW ENGLISH COMPANIES

### THE MARYPORT MOTOR BENZOLE COMPANY, LTD

Registered on February 24th by Jordan & Sons Ltd., 117, Chancery Lane, W.C. Capital, £10,000 in £1 shares. Objects: To carry on the business of refiners and distillers of benzole, etc.; also to enter into an agreement with St. Helen's Colliery and Brickworks Company, Ltd., Flamby and Broughton Moor Coal and Firebrick Company, Ltd., Oughterside Coal Company Ltd., and W. Irwin. First directors: W. Irwin (managing director), Derment Lodge, Cockermouth; A. C. Scoular, Whitehaven; L. Wilson, Ormathwaite Hall, Keswick; J. Williamson, Bell Vue, Cockermouth; and S. Jackson, 34, Cambridge Road, Southport. Qualification, £500. Private company.

### THE NORTH TAZLAU SYNDICATE, LTD.

Registered on March 3rd, by F. C. Mathews & Co., 151, Cannon Street, E.C. Capital £700, in £1 shares (350 "A" and 350 "B"). Objects: To acquire options, concessions, etc., relating to oil-bearing lands in Roumania or elsewhere, and to develop lands containing or reputed to contain petroleum and other oils, etc.; also to enter into an agreement with B. Man, and W. E. Cooper. First directors, R. B. Fraser and W. B. Blackwell. Remuneration, ten per cent. of the net profits made during any financial year. Registered office: Spencer House, South Place, Finsbury, E.C. Private company.

### WHITE PETROL, LTD.

Registered on March 4th, by Blanckensee & Co., 27, King Street, Cheapside, E.C. Capital £4,000, in 1s. shares. Objects: To carry on the business of distillers, producers, refiners, etc., of petrol, and petroleum, and other oils, and the products of same. Minimum cash subscription, seven shares. Signatories: F. G. Harrison, E. A. Frankland, H. E. Buckle, W. Boot, E. T. Lascelles, W. G. Gibson, and A. Stringer. First directors (who are to number not less than two nor more than seven) are to be appointed by the signatories. Qualification, 1s. Registered office, 400–402, Moorgate Station Chambers, E.C.

### THE F. P. P. SYNDICATE, LTD.

Registered on March 6th, by R. F. Pellatt, Kingsway House, W.C. Capital £6,000, in £1 shares. Objects: To carry on the business of dealers in, and owners of oilfields, and drillers of wells, etc., also to deal in petrol, and all products of crude petroleum, etc. First directors (who are to number not less than two or more than five) are Sir C. Follatt, S. Pellatt, and M. Parker. Registered office, Kingsway House, W.C. Private company.

### THE B. S. C. SYNDICATE, LTD.

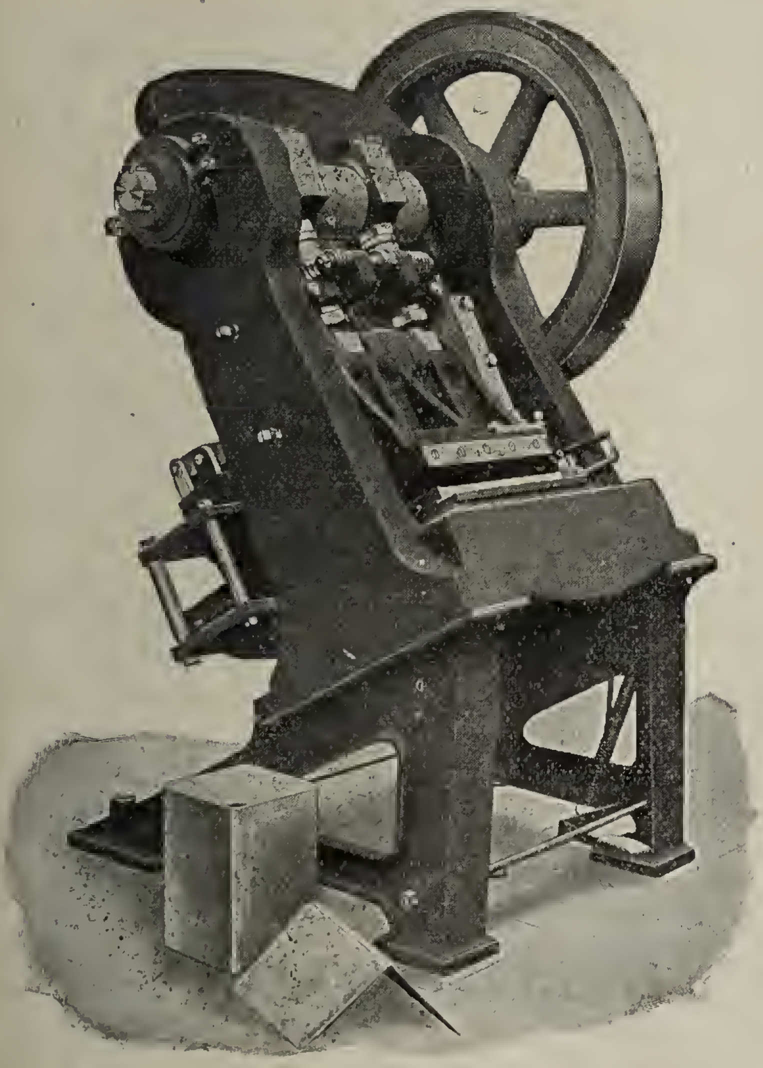
Registered on March 6th, by R. F. Pellatt, Kingsway House, W.C. Capital £1,000, in £1 shares. Objects: To carry on the business of owners of oilfields, and drillers of wells, etc., and also to deal in petrol, and all other products of petroleum, etc. First directors (who are to number not less than two nor more than five) are M. Parker (permanent), S. J. O. Cuffe, and R. F. Pellatt. Registered office, Kingsway House, W.C. Private company.

## PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING FEBRUARY.

### THE SHIPMENTS INTO VARIOUS PORTS.

The various shipments of petroleum products into the U.K. ports during February are given in the following table. The total imports for the month were 29,009,220 gallons, or 16,205,850 gallons less than in January.

| Port. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 250 | — | — | — | — | — |
| Barrow ... ... ... | 757,290 | — | — | — | 1,965,770 | — | — |
| Belfast ... ... ... | — | 9,310 | — | 656,540 | — | — | — |
| Boston ... ... ... | — | 250 | — | — | — | — | — |
| Bristol ... ... ... | — | 66,240 | — | — | — | — | — |
| Cardiff ... ... ... | — | 2,040 | — | — | — | — | 160 |
| Dublin ... ... ... | — | 580 | — | — | — | — | — |
| Dundee ... ... ... | — | 80 | — | — | — | — | — |
| Glasgow ... ... ... | 4,800 | 314,650 | — | — | — | — | 2,600 |
| Gloucester ... ... ... | — | 320 | — | — | — | — | — |
| Goole ... ... ... | — | 860 | — | — | — | — | — |
| Grangemouth ... ... | 1,200 | 3,120 | — | — | — | — | — |
| Granton ... ... ... | — | — | — | — | 434,000 | — | — |
| Grimsby ... ... ... | — | 2,640 | — | — | — | — | — |
| Harwich ... ... ... | — | 3,960 | — | — | — | — | — |
| Hull ... ... ... | — | 161,400 | — | — | — | — | — |
| Leith ... ... ... | 20,490 | 32,500 | — | — | — | — | 5,200 |
| Limerick ... ... ... | — | 420 | — | — | — | — | — |
| Liverpool ... .. ... | 834,340 | 639,090 | 896,250 | 1,060,190 | — | — | 24,510 |
| London ... ... ... | 7,658,210 | 1,662,410 | — | 2,084,660 | 2,876,890 | 1,136,290 | 5,200 |
| Manchester ... ... | 1,636,750 | 288,450 | 2,730 | — | — | 1,357,000 | 23,840 |
| Middlesbrough ... ... | — | 7,300 | — | — | — | — | — |
| Newcastle ... ... ... | — | 13,300 | — | — | — | — | — |
| Newport ... ... ... | — | 2,240 | — | — | — | — | — |
| Plymouth ... ... ... | 695,730 | — | — | — | — | — | — |
| Portsmouth ... .. | — | 580 | — | — | — | — | — |
| Southampton ... ... | — | 250 | — | — | — | — | — |
| Sunderland ... ... | 1,217,000 | — | — | — | — | 435,500 | — |
| Swansea ... ... ... | — | 2,840 | — | — | — | — | — |
| Totals ... ... | 12,825,810 | 3,216,080 | 898,980 | 3,801,390 | 5,276,660 | 2,928,790 | 61,510 |



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LONDON: Mansion House Chambers, E.C.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

March 13th, 1914.

The prices of Refined Petroleum remain unchanged as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS.

There are no changes, prices being for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

The current price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

The price is unaltered, the best quality being 1s. 9d. and the second quality 1s. 7d. per gallon retail in London.

### TURPENTINE.

American Turpentine is quoted for spot 32s. 1½d.; April, 32s. 4½d.; May/August, 33s.; September/December, 34s.

## LIVERPOOL.

March 12th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, February 8th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... ... ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... ... ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, March 10th.

Refined, in cases, is quoted at 11·25; Standard White 8·75; Credit balances, 2·50.

Philadelphia, March 10th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, March 10th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

Baku, March 10th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 42¾–43 copecs per pood spot. Kerosene, 51–51½ copecs. Residuals, 39½–40 copecs.

## ROUMANIA.

March 10th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·20–8·30 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–6·50 |
| ,, ,, ,, | Policiori... | 5·75 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·30 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

March 10th.

Crude oil is quoted 8·00–8·15 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg. M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date March 12th as under:—

The market continues very quiet, with prices practically unchanged at last week's rates, viz.:—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... ... | 13/7½ | per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, ... ... | 19/3 | ,, ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

**E. A. GIBSON**

**AND COMPANY,**

*Tank Steamer, Sailing-Ship, and Oil Brokers,*

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LONDON, E.C**

AND AT THE BALTIC.

Telegrams: "BLUERIBBON, LONDON."

Telephone: 4072 AVENUE.

# The American Oil Market.

◆

### Saturday, February 28th, 1914.

THE only event of new interest in the crude situation during the week, says the *Oil Paint and Drug Reporter*, has been the receipt of exports for January, showing a total of 14,982,068 gallons, valued at $296,247, comparing with 14,083,986 gallons ($636,739) and 17,999,440 gallons ($592,301) for January, 1913 and 1912, respectively. For the seven months ending January of the current fiscal year crude exports have amounted to 100,010,150 gallons ($4,790,861), as against 101,922,624 gallons ($4,025,822) and 124,349,032 gallons ($4,059,103) for the corresponding periods of the previous two years.

The week's review of Eastern field operations shows a marked decline in completions, but a greater proportionate loss in new productions. The current summary notes 180 completions, 3,645 barrels of new daily production, and 55 dry holes, while the previous returns were 227 completions, 8,910 barrels of new daily production, and 80 dry holes. Weather conditions have constituted the principal occasion for setback in field work. West Virginia, Kentucky, North-western Ohio, and Indiana registered fewer completions during the week, while the only gains are noted in South-eastern Ohio and Illinois, Pennsylvania standing on its previous basis. The heaviest loss was in Indiana. Declines in new production marked the returns from Pennsylvania, West Virginia, North-western Ohio, and Indiana. South-eastern Ohio, Kentucky, and Illinois were in more favourable comparison. The heaviest decrease was in West Virginia returns.

New York has been retarded in the Illinois fields as a result of the winter season, and while the new wells showed a loss as compared with the previous record, there was a gain in the current new production. One of the interesting developments in the State has been the start of a town lot boom at Robinson on the prospects that the town lies over a valuable pool of oil. The wells in the section have a capacity from 20 to 60 barrels at the start, but decline to 5 to 10 barrels, although maintaining the lower output for a considerable time.

Mid-continent field operations have been handicapped by the severity of winter, delaying the completion of several important tests. Despite the setback there was an exceptional number of good producers brought in during the week. Practically all of the effective development work is centred in the established fields, with the possible exception of Healdton, which is rapidly taking its place among the defined pools. The active extent of wildcatting operations in the Mid-continent field has so far contributed nothing of marked significance. The Cushing pool has taken on a new lease of life since the favourable results have been reached from the Bartlesville sand. The Tulsa county pools have been the scene of satisfactory developments. Good wells have also been encountered at Inola, where the pay is found at a very shallow depth, and in the Boock sand district of Okmulgee county. In the Kansas fields Cowley county holds the centre of attraction, and operators are encouraged in the hopes of finding an extension of the Newkirk pool. Facilities for handling crude oil in the Mid-continent field cover a daily total of 210,000 barrels, which amount is said to be fully adequate for present demands.

An important feature of the week's developments in the California fields has been the report that a leading refining company is offering to pay a 5-cent advance to 45 cents for heavy oil below 20·9 degrees. This move, making the second advance within thirty days, is believed to be due to the desire to stimulate the production of fuel oil, in which a big shortage is threatened.

## Refined Products.

Quiet conditions have characterised the local illuminating oil market during the week, with a sharpening influence on competition among refiners, although quotations have been subjected to no definite variation.

### CLOSING QUOTATIONS.

### CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were :—

| | 1913. Feb. 28. | 1914. Feb. 28. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.05 | $2.50 |
| North Lima ... ... ... ... | 1.28 | 1.49 |
| South Lima ... ... ... ... | 1.23 | 1.44 |
| Indiana ... ... ... ... ... | 1.23 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.11 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.83 | 1.03 |
| Humble, Tex. ... ... ... ... | 0.75 | 0.90 |
| Saratoga ... ... ... ... ... | 0.75 | 0.90 |
| Sour Lake, Tex. .. ... ... ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| „ Kern River heavy ... | — | 0.35 |
| CANADIAN OIL ... ... ... ... | 1.68 | 1.89 |

### REFINED—FOR EXPORT.

| In cents. | | Week ended Feb. 28. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... ... | | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... ... | | 8·75 | 9·75 |
| Cases, New York ... ... ... | | 11·25 | 12·25 |
| Cases, Philadelphia ... ... ... | | 11·25 | 12·25 |

### NAPHTHA AND GASOLINE.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... .. ... ... | 29½ |

### REFINED IN CASES—110 FIRE TEST.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

### REFINED—JOBBING LOTS.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½–9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 2,289,000 | 40,293,610 | 17,625,839 |
| Refined ... ... | 7,597,995 | 116.964,415 | 134,639,430 |
| Naphtha ... | 367,055 | 13,563,530 | 9,132,050 |
| Gas oil ... ... | 1,067,815 | 8,918,085 | 10,477,800 |
| Fuel oil... ... | 6,000,670 | 15,075,615 | 17,941,760 |

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
EE ADVERTISEMENT ON BACK COVER.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MARCH 9TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Mar. | London— | | | |
| 3 | Port Authority | Lub. | 2,020 | Hamburg |
| 3 | E. G. Boize | Lub. Oil and Gr. | 1,020 | " |
| 3 | Vacuum Oil Co. | Lub. | 2,080 | New York |
| 4 | Hanseatic Maritime Agency | " | 40 | Bremen |
| 4 | Asiatic Petroleum Co. | Benzine | 10,000 | Rotterdam |
| 5 | B. Jacob & Son | Lub. | 13,850 | Philadel. |
| 5 | Mead, Son, & Hussey | " | 1,250 | Dunkirk |
| 6 | London Oil Storage Co. | " | 8,000 | " |
| 6 | L. Freeland | " | 210 | Antwerp |
| 6 | Hanseatic Maritime Agency | " | 240 | Bremen |
| 6 | E. G. Boize | Lub. Oil and Gr. | 1,370 | Hamburg |
| 6 | Anglo-American Oil Co. | Lamp | 1,289.130 | New York |
| 6 | " " | Naphtha | 1.388,810 | " |
| 6 | " " | Gas | 2,084,370 | " |
| 7 | Produce Brokers Co. | Lub. | 8,000 | " |
| 7 | Port Authority | " | 6,600 | " |
| 7 | " | " | 480 | Marseilles |
| 7 | " | " | 280 | Hamburg |
| 9 | " | " | 2.520 | " |
| 9 | Vacuum Oil Co. | " | 200 | " |
| 9 | Leach & Co. | " | 240 | Ghent |
| 9 | British and Foreign Wharf | " | 400 | Antwerp |
| 9 | Pinchin, Johnson & Co. | " | 840 | Philadel. |
| 9 | J. Thompson | " | 4,510 | New York |
| 9 | Ragosine & Co. | " | 5,650 | " |
| | Liverpool— | | | |
| 28/1 | Anglo-American Oil Co. | Gas | 1,550 | Sabine |
| 4 | Wilkinson Bros. | Lub. | 510 | Ghent |
| 5 | Rowand & Co. | " | 80 | Antwerp |
| 5 | D. Currie & Co. | " | 40 | Hamburg |
| 6 | A. Hopps & Sons | Lub. Resid | 2,720 | N. News |
| 7 | Vacuum Oil Co. | " | 8,480 | " |
| 9 | A. Hopps & Sons | M. Colza | 5,440 | Baltimore |
| 9 | " | Lub. | 29,000 | " |
| 9 | Pickford's | " | 2,600 | " |
| 9 | Meade-King, Robinson & Co. | Lub. Oil and Gr. | 13,440 | " |
| 9 | C. C. Wakefield & Co. | Lub. | 5,920 | " |
| 9 | Burnaby & Chantrell | " | 5,230 | " |
| 9 | " " | Lub. Gr. | 670 | New York |
| 9 | Anglo-American Oil Co. | Lub. | 35,800 | " |
| 9 | Vacuum Oil Co. | Lub. Oil and Gr. | 23,280 | " |
| 9 | Burnyeat & Dalzell | Lub. | 230 | Bergen |
| 9 | Huxley & Co. | " | 210 | Ghent |
| 9 | Pickford's | " | 250 | Antwerp |
| 9 | Meade-King, Robinson & Co. | Benzine | 50,000 | Rotterdam |
| | Boston— | | | |
| 9 | W. F. Beaumont | Lub. | 420 | Hamburg |
| | Bristol— | | | |
| 3 | First Anglo-Russian Oil Co. | " | 530 | " |
| 4 | Pickford's | Lub. Oil and Gr. | 180 | " |
| 4 | W. G. Clarke | Lub. | 500 | Antwerp |
| 4 | British Petroleum Co. | Lamp | 939,900 | Port Arthur |
| 4 | " " | Gas | 751,600 | " |
| 5 | B. Perry & Sons | Lub. | 1,320 | Antwerp |
| | Cardiff— | | | |
| 3 | Bristol Steam Navig. Co. | " | 500 | " |
| | Goole— | | | |
| 2 | Goole Steamship Co. | " | 320 | Hamburg |
| | Grimsby— | | | |
| 3 | J. Sutcliffe & Son | " | 650 | Antwerp |
| 6 | " | " | 710 | " |
| | Harwich— | | | |
| 2 | Great Eastern Railway | " | 240 | Hamburg |
| 3 | " " | " | 610 | Antwerp |
| 5 | " " | " | 440 | " |
| 7 | " " | " | 590 | " |
| | Hull— | | | |
| 2 | Wilson's & N. E. Railway | " | 3,320 | Hamburg |
| 2 | " " | " | 280 | Ghent |
| 2 | " " | " | 1,000 | Antwerp |
| 6 | " " | " | 800 | Hamburg |
| 6 | " " | " | 3,000 | Dunkirk |
| 6 | T. Wilson, Sons & Co. | " | 520 | Riga |
| 9 | W. Gilyott & Co. | Lub. | 38,960 | New York |
| 9 | T. Wilson, Sons & Co. | " | 7,880 | " |
| 9 | Wilson's & N. E. Railway | " | 920 | Hamburg |
| 9 | " " | " | 1,600 | Antwerp |
| | Manchester— | | | |
| 3 | G. B. Taylor | Lub. Gr. | 610 | New York |
| 3 | Meade-King, Robinson & Co. | Lub. | 5,200 | Philadel. |
| 3 | Bramwell, Fern & Co. | " | 26,460 | " |
| 3 | " " | " | 10,800 | " |
| 3 | Worthington & Boler | " | 3,360 | " |
| 4 | F. Chiesman & Co. | " | 2,220 | New York |
| 5 | Crew, Levick & Co. | M. Colza | 1,270 | Philadel. |
| 5 | " | Lub. | 11,710 | " |
| 5 | Anglo-American Oil Co. | Lub. Gr. | 1,960 | " |
| 5 | D. Currie & Co. | Lub. | 150 | Hamburg |
| 5 | Pickford's | " | 90 | " |
| 6 | D. Currie & Co. | " | 220 | " |
| 7 | Homelight Oil Co. | Lamp | 1,362,900 | Kustendje |
| 7 | British Petroleum Co. | " | 453,700 | " |
| | Newcastle— | | | |
| 2 | Tyne-Tees Steamship Co. | Lub. | 1,480 | Antwerp |
| 3 | " " | " | 2,360 | Hamburg |
| 3 | P. H. Matthiessen & Co. | " | 480 | Bergen |
| 7 | " " | " | 480 | " |
| | Middlesbrough— | | | |
| 3 | E. Harris & Co. | " | 200 | Antwerp |
| | Southampton— | | | |
| 6 | Royal Mail Steam Pkt. Co. | " | 800 | Hamburg |
| | Swansea— | | | |
| 7 | Bristol Steam Navig. Co. | " | 240 | Antwerp |
| | Aberdeen— | | | |
| 2 | R. C. Reid & Co. | " | 400 | Hamburg |
| | Glasgow— | | | |
| 3 | Anchor Line | Lub. Oil and Gr. | 24,530 | New York |
| 3 | Clyde Shipping Co. | " | 620 | Antwerp |
| 6 | " | Lub. | 320 | " |
| 9 | " | " | 80 | Ghent |
| | Grangemouth— | | | |
| 3 | Jas. Currie & Co. | " | 2,000 | Hamburg |
| | Leith— | | | |
| 3 | Jas. Currie & Co. | " | 960 | " |
| 5 | " | " | 1,200 | " |
| 5 | G. Gibson & Co. | " | 2,000 | Dunkirk |
| 9 | Jas. Currie & Co. | " | 900 | Hamburg |
| | Belfast— | | | |
| 4 | J. C. Pinkerton & Co. | Lub. Oil and Gr. | 760 | Antwerp |
| | Cork— | | | |
| 4 | P. Murphy & Co. | " | 250 | Hamburg |
| | | | 8,695,000 | |
| | Deduct— | | | |
| | London— | | | |
| 17/1 | Bramwell, Fern & Co. | Lub. | 1,260 | Philadel. |
| 29/1 | Lubricating & Fuel Oils Co. | " | 5,800 | Hamburg |
| 17/2 | British Petroleum Co. | Lamp | 5,600 | Port Arthur |
| 17/2 | " | Gas | 17,960 | " |
| 2/2 | F. Chiesman & Co. | Lub. | 2,000 | New York |
| | Bristol— | | | |
| 20/1 | Anglo-American Oil Co. | Lamp | 26,900 | " |
| 21/1 | British Petroleum Co. | Gas | 3,220 | Port Arthur |
| 22/1 | Anglo-American Oil Co. | " | 4,100 | Philadel. |
| 23/1 | British Petroleum Co. | Lamp | 14,900 | Port Arthur |
| 16/2 | Pickford's | Lub. | 220 | Antwerp |
| | Goole— | | | |
| 11/2 | Goole Steamship Co. | " | 240 | Hamburg |
| | Manchester— | | | |
| 26/1 | British Petroleum Co. | Gas | 2,960 | Port Arthur |
| | Sunderland— | | | |
| 7/2 | British Petroleum Co. | Lamp | 19,400 | N. Orleans |
| 20/2 | Anglo-American Oil Co. | Fuel | 35,600 | New York |
| 21/2 | " " | Lamp | 11,500 | " |
| | | | 8,543,340 | |
| | Add— | | | |
| | Boston— | | | |
| 2/3 | W. F. Beaumont | Lub. | 310 | Hamburg |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**The World's Oil Exhibition.**

TO-DAY the World's Oil Industries Exhibition opens its doors at Earl's Court, London, S.W., and we are not exaggerating fact when we say that the event is being looked forward to with the keenest possible interest by oil men. At this early moment, it is premature to judge of the appearance of the great hall when the work of erecting the various stands is completed, but it is safe to assert that the Exhibition will be of a very comprehensive character and well worthy of a visit. The various phases of the petroleum industry are well represented, and though it is to be regretted that the support of the Foreign Governments has not been obtained, the collective display is one of great interest. The lectures which are to be nightly delivered promise to be of a high order, while the cinematograph displays —all oil pictures—are bound to attract large audiences. In our next issue we shall deal at length with the most important exhibits, and hope to publish full reports of several of the lectures. We would here, however, congratulate the general organiser of the Exhibition—Mr. G. D. Smith—upon the exceedingly brave show he has got together—practically single-handed.

◆

**American Government Officials Investigate the Oil-Fuel Question.**

THE government officials of the United States Navy Department Indian Office are now busily engaged in pushing forward the policy which is intended to secure for naval needs a sufficient supply of oil fuel for the indefinite future. The officials are now sitting, hearing statements made by oil producers in the Oklahoma country in connection with the investigation to determine feasible plans for obtaining oil-fuel. Some inquiries have also been made regarding opportunities for obtaining oil-fuel in the California fields. As soon as the inquiry is completed the officials will make trips to the various oil regions and endeavour to ascertain from personal inquiry on the ground exactly what can be accomplished. The line of questioning thus far carried on has been mainly for the purpose of advising the officials of the most productive fields for oil-fuel and the feasibility of putting in pipelines to connect with the seaboard. The government officials are expecting to request representatives in the oil country to submit in writing suggestions in regard to the best plan for promoting the project for obtaining unlimited supplies of oil-fuel for the navy.

◆

**Roumania and its Hand-dug Oil Wells.**

THE picturesque though primitive hand-dug oil wells in Roumania are slowly passing out of existence, and in a few years we doubt if many of these interesting relics of the old order of things will remain to remind us of the small beginnings from which Roumania's gigantic petroleum industry of to-day sprang. Of the thousand odd hand-dug wells in the country, but one-half are in operation at the present time, and of this number over 300 are to be found in the Bacau district, the old Bustenari region only boasting of 80 hand wells which are now commercially producing oil. The hand-dug well, however, is dying hard, for in spite of the fact that the machine drill has for years conquered, several hand-dug wells are still being put down, there being no less than twenty at the moment in course of sinking in the Bustenari region alone. But even these are not carried on in the primitive ways of former times, for the hand-dug well of to-day differs considerably from its predecessor in many ways, being in regard to its equipment tolerably up to date.

◆

**Canada's Declining Output.**

WE doubt if there be another oil-producing country in the world whose crude oil output has so consistently declined during the past decade as is the case with Canada. The decline, too, is the more surprising when one recollects the fact that the Government of the Dominion has done its utmost to foster it by giving a bonus upon home-produced oil. Canada has never been able to boast of having prolific deposits of liquid oil, but at one time it had an output which certainly gave grounds to suppose that it was capable of considerable augmentation. For instance, in 1907 the fields of the Dominion produced nearly 800,000 barrels—not a large amount we agree, yet a not insignificant total when one considers the absence of the real speculative element among Canadians. To-day, however, the production of crude oil in Canada has dropped over sixty per cent., for, according to the official figures of output, last year's total was but 207,000 barrels, or a decrease of 36,000 barrels from the production during 1912. One can only hope that this substantial decline may be averted in the future by the serious exploitation of the Dominion's shale deposits, which, without doubt, are of great magnitude and worthy of operation upon a gigantic scale.

## PERSONAL ITEMS.

Mr. W. Calder, petroleum engineer, who has been associated with oil developments in Mexico, and latterly in Maikop, left London on Wednesday on board the "Olympic" for the States upon important business.

* * *

Mr. Charles Williams, formerly in charge of oil developments in New Zealand, left London a few days ago to take up a new appointment in the Baku fields.

* * *

Mr. W. L. Mackenzie, of the Oil Well Engineering Company, Ltd., London and Cheadle, is expected to arrive in England to-day (Saturday), after a several months' visit to Argentine.

* * *

Mr. A. F. Heaton, a director of the Oklahoma Oil Company, Ltd., left London last week-end on a visit to the company's property in the Oklahoma field, making Tulsa his headquarters. Mr. Heaton left on the "Carmania."

* * *

Mr. F. G. Rappoport, consulting engineer, formerly associated with the Anglo-Maikop Corporation, Ltd., leaves London to-day (Saturday) for Mexico viâ New York. Mr. Rappoport is to examine some oil properties near Tampico.

* * *

Mr. Richard W. Barnett, chairman of the Oilfields Finance Corporation, Ltd., has left London for a few weeks' well-earned holiday on the Continent.

* * *

Mr. George Tweedy, who has been for several weeks past in the Maikop field, is expected back in London about the middle of next month.

* * *

Mr. Charles Dabell, the general manager of the Anglo-Maikop Corporation, Ltd., in Russia, returned last week to Maikop after having spent a short sojourn in London. The primary object of Mr. Dabell's visit to London was to take to himself a wife.

## THE "SAN ISIDORO" HAS HER TRIALS.

The steel screw oil-tanker "San Isidoro," one of the six which have been ordered from the Walker shipyards of Sir W. G. Armstrong, Whitworth & Company, Ltd., by the Eagle Oil Transport Company, Ltd., of London, was taken to sea for trial on Wednesday. The conditions of weather and sea were very unfavourable, in spite of which, however, a mean speed of 12 knots was attained. On the trial the owners were represented by Captain Cox, marine superintendent, and there were also present Mr. H. Barringer and Mr. Bradney, under whose supervision the vessel has been constructed. The engine builders were represented by Mr. D. Myles and Mr. J. Daglish, and the builders by Colonel R. S. White, Mr. Edwin L. Orde, Mr. A. Gulston and Mr. A. Douie.

**Standard Extensions.**—The Standard Oil Company of Indiana is about to spend a sum of $130,000 in building a new supply station at St. Louis, Mo.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended March 14th was 122,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended March 15th was 269,305 poods, or about 4,344 tons. The total production for the year from January 14th to March 15th was 2,517,160 poods, or about 40,599 tons. The total production for the corresponding period last year was 2,425,575 poods, or about 39,122 tons. Price of crude oil at Baku is now 43 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended March 14th was 22,717 poods, or 366 tons.

European Oilfields Corporation, Ltd. — The production for the week ended March 15th was 110,500 poods, or 1,781 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended March 14th was 129,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended March 14th was 21,740 poods (351 tons).

Maikop New Producers, Ltd.—Production for week ended March 14th was 8,400 poods (135 tons).

British Maikop Oil Company, Ltd.—Production for week ended March 15th was 14,649 poods, or 236 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended March 14th, 91,820 poods, or 1,480 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended March 17th was 509,489 poods, or 8,217 tons. Corresponding period last year, 1,577 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended March 15th was 87,600 poods, or 1,413 tons.

Maikop Midland.—Production at Krimskaya for week ended March 14th was 8,405 poods, or 136 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended March 14th was 24,766 poods (399 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended March 14th was 1,450 poods (23 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended March 14th was 3,330 poods, or 54 tons.

Cheleken Oilfields, Ltd.—Estimated production for the fortnight ended March 14th, 1,730 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
LONDON, E.C.

# THE WORLD'S OIL EXHIBITION.

## A PRELIMINARY LOOK ROUND THE EXHIBITS.

## OPENING CEREMONY TO BE PERFORMED BY SIR BOVERTON REDWOOD, BART.

Judging by the progress which is being made night and day in the preparation of the various exhibits for the World's Oil Industries' Exhibition which opens its doors to-day (Saturday) for a fortnight's run at Earl's Court, London, S.W., everything will be in readiness for the opening ceremony, which has been fixed for three o'clock.

As these lines are being written—Friday evening—the finishing touches are being made to many of the stands, others are already completed, while the remainder are in a less forward state. A few hours, however, makes all the difference in the world to the appearance of a trade exhibition, and it is now safe to assume that the Great Hall at Earl's Court will present a bright, interesting, and thereabouts finished appearance when the first visitors arrive.

When the innumerable difficulties which beset the path of the exhibition promoter are recollected, it is little less than remarkable that such a comprehensive and instructive show has been got together, for it must not be forgotten that the great support which was at one time expected from our American friends through Mr. Arbon has not materialised, while, too, the Continental Governments have not seen their way to forward those interesting and instructive exhibits which alone are ever at the disposal of Governments in whose country a flourishing petroleum industry exists. Nevertheless, the Exhibition is of a comprehensive nature and well worthy a visit.

The chief branches of the petroleum industry are well represented, and we intend in our next issue to ouch in detail upon the various principal exhibits. It s sufficient, then, at the moment to confine our attenion to the bare mention of a few of these, and we will commence with the drilling of oil. Though the ection devoted to the display of drilling apparatus is not as strong as it might be, it is fairly representative. The J. F. Lucey Company, with their usual enterprise, have a special exhibit in the grounds of the far-famed Parker rotary, while in the Exhibition hall they have n attractive stand upon which are displayed Lucey able tools, drilling bits, jars, wire rope sockets, and nnumerable apparatus connected with drilling appaatus, including samples of American standard oilfield pipe, etc.

The Holland Drilling Company, of Heerlen, have n exhibition one of their popular 24 h.p., portable rigs or going to the depth of 2,000 ft., suitable for any ystem of drilling, while in addition there is a omplete model of the Orion Company's Tintea property, with geological and oil samples—this company being associated with the Holland Drilling Company in its various enterprises. Adjoining the tand is an interesting exhibit by the Oil Well Engineering Company, Ltd., of a table of their No. 2 A ype of the "British" rotary, this being operated by the Compayne transmission (Hele-Shaw) system—an ingenious device which will appeal to all oil men.

In another part of the hall Mr. John Thom, Government boring contractor, of Patricroft, Lancashire, has an exhibit, showing numerous samples of well cores of various diameters, as well as a complete series of strata passed through in the drilling of an oil well in one of the Far Eastern fields.

The list of other exhibitions in connection with drilling apparatus includes Messrs. Werf Conrad, of Holland, who have an artistically ornamental stand near the centre of the hall; Messrs. Trauzl & Co., Vienna, and the Ingersoll Rand Company, of London.

The distributing companies are well represented, the Anglo-Mexican Petroleum Products Company, Ltd., the Anglo-American Oil Company and the British Petroleum Company, Ltd., all having large exhibits. The stand of the former company is of particular interest, inasmuch as there is seen the practical application of Mexican fuel oil, Brett's and Alldays and Onions' burners being used.

Many are the stands devoted to displays of petroleum products independent of those of the large distributing companies already mentioned. Messrs. Benjamin & Co. have an interesting exhibit in the centre of the hall, while the Lubricating and Fuel Oils, Ltd., Messrs. Leon & Co. (representing the Lianosoff W. O. Company), the Indian Oil Refining Company, and others, including the comprehensive shows made by Sir Boverton Redwood and the Petroleum Institute, give the visitor a splendid idea of the variety of refined products obtainable from crude oils.

The principal makers of petroleum can machinery are giving visitors and the trade an opportunity of seeing the perfection which has now been attained in automatic can-making machines and presses. The E. W. Bliss Company have no less than seven machines in operation, while Messrs. J. Rhodes & Sons, Ltd., of Wakefield, have the principal types of their presses on view and in operation.

The oil-engine section is representative, several well-known makers having machines in motion, but detailed reference to these will be made in our next issue.

The stand of Messrs. Smith's Dock Company, in the centre of the hall, is of considerable educational interest, while other exhibits, which space prevents our referring to here, will give the visitor a good insight into the petroleum industry and the multifarious uses of petroleum products.

The educational value of the Exhibition will be considerably enhanced by a series of lectures which will be given in the Cinema Hall during the next fortnight.

The opening lecture takes place next Monday, when Dr. P. Dvorkovitz will speak upon "The Romance of the Petroleum Industry," the chair being taken by

Mr. D. A. Sutherland. On Tuesday Mr. John Wells will lecture upon "Drilling Methods Past and Present," while on Wednesday evening Messrs Stewart and Broussin, of the Mexican Eagle Company, will present a joint paper upon "The Mexican Oil Industry," the chair being taken on this occasion by Mr. John Purdy. This lecture will be illustrated by special limelight views. On Thursday next, Mr. W. H. Booth, F.G.S., lectures on "Oil Fuel from an English Standpoint," Mr. Booth delivering a further lecture in the following week on "Drilling Difficulties and Their Causes." Next Saturday Mr. Geo. Howell, F.G.S., will lecture upon "Work on a Russian Oilfield," a special cinematograph film together with limelight views being used on this occasion, when the chair will be taken by Mr. E. R. Blundstone. "The Oilfields of England" forms the subject of Mr. J. T. Armstrong's lecture, which will be delivered next Friday evening.

In addition to the series of lectures, a most interesting cinematograph entertainment has been arranged, for Messrs. Pathé Frères will present a number of new and specially taken oilfield and other pictures, the Anglo-Mexican and Anglo-American Companies' special films being also shown.

Sir Boverton Redwood, Bart., the well-known authority on petroleum and the President of the newly-formed Society of Petroleum Technologists, has kindly consented to open the Exhibition at three o'clock to-day (Saturday).

◆

## THE PRODUCTION OF THE CALIFORNIAN FIELDS DURING JANUARY.

### A New Record of Output.

DETAILS to hand of the output of crude oil in the Californian fields during January show that all former records of production were broken, the total quantities raised above ground during that period being nearly 9,000,000 barrels.

The output of the various fields during the month was as under:—

| | Producing Wells. | Barrels. |
|---|---|---|
| Kern River | 1,183 | 676,337 |
| McKittrick | 265 | 329,045 |
| Midway-Sunset | 1,273 | 4,226,315 |
| Lost Hills-Belridge | 211 | 471,980 |
| Coalinga | 861 | 1,346,782 |
| Lompoc-Santa Maria | 241 | 455,968 |
| Ventura County—Newhall | 416 | 73,919 |
| Los Angeles—Salt Lake | 698 | 203,456 |
| Whittier—Fullerton | 508 | 1,135,104 |
| Summerland | 125 | 4,950 |
| Total | 5,781 | 8,923,856 |

◆

**Oklahoma Oil Company, Ltd.** — The secretary reports that the oil sales (less royalties) of the Canadian Oil and Gas Company for the month of February last realised $12,452.35, the corresponding figure for 1913 being $12,648.50. The total sales for the first two months of 1914 amount to $25,772.50, against $27,422.40 for the same period of last year.

## ROUMANIAN PETROLEUM EXPORTS DURING JANUARY.

THE total exports of Roumanian petroleum products during January amounted to 68,388 tons, as against 88,083 tons exported during January, 1913, thus showing a decrease of 19,695 tons. The exports of the various products to the various countries are shown in the following table :—

| | Residuals. Tons. | Kerosene. Tons. | Benzine. Tons. |
|---|---|---|---|
| England | 4,078 | 3,616 | 704 |
| Austria-Hungary | 107 | 345 | 537 |
| Belgium | 2,809 | 1,197 | 362 |
| Bulgaria | 168 | 140 | 56 |
| Egypt | 2,935 | 6,285 | — |
| France | — | 276 | 781 |
| Germany | 133 | 2,837 | 10,530 |
| Greece | 43 | 657 | 42 |
| Italy | 5,676 | 7,861 | 2,200 |
| Turkey | 628 | 5,489 | 67 |
| Servia | — | — | 2 |
| Switzerland | — | — | 101 |
| Holland | — | — | 1,072 |
| Denmark | — | — | 35 |
| Norway | — | 4,451 | — |
| Totals | 16,577 | 33,154 | 16,489 |

Besides the above, there were exported 1,426 tons of crude oil (to Austria), 617 tons of lubricating oils, and 126 tons of paraffin.

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# THE OILFIELDS OF THE WORLD.

## A BRIEF REVIEW OF DEVELOPMENTS DURING 1913.

A brief review of the developments which have taken place in the chief oilfields of the world during the past year is not only of immense interest to those who follow the progress which the petroleum industry is making in every part of the globe, but on the present occasion such an article will naturally be welcomed, inasmuch as the present issue of the Review will through the medium of the Oil Exhibition doubtless find its way into the hands of many who so far are not counted among our regular readers.

During the past few weeks, we have published details of the principal oil-producing fields for the past year, but hitherto the Review has not made it a policy to publish in one issue a statistical article covering the whole of the oilfields of the world. It is, however, to be hoped that the present article will not only prove interesting reading, but be of great value as a record of the developments recorded and the progress achieved during the past year in the world's oilfields. As is now generally known, the year 1913 was remarkable in the one respect that it witnessed the production of the greatest quantity of crude oil that has ever in twelve months been brought above ground, for the total production was approximately 54,000,000 tons, as against 50,000,000 tons for the preceding year, and 45,000,000 tons for 1911. The industry of petroleum production made real headway during 1913, and this headway was not confined to the main regions of production, for developments were carried out with such energy that several hitherto untouched localities were brought successfully under the drill while others commenced their career of commercial exploitation.

With a consistently expanding demand for the whole of the products of petroleum, the steadily increasing growth in the production of petroleum is not surprising. Neither one nor the other has yet reached the limit. The latter is ruled by the former, for it is only a greater demand in the world's markets for petroleum products which can bring about any material increase in the world's output of crude oil. We will not dwell however, upon this aspect of the question, but content ourselves by treating in a brief manner the efforts which were successfully put forward last year to bring the production of crude oil, not only to the level of the demand, but to also provide for a continuation of the increased demand for petroleum and its numerous products.

A Group of Derricks in the Californian Fields.

Inasmuch as the United States of America is by far the largest producer of crude oil, we will first deal somewhat in detail with the American fields during the past year.

### America.

The total output of the American fields last year reached a new record, the production being in the neighbourhood of 243,000,000 barrels, as compared with 222,000,000 for the preceding twelve months. The figures would have been considerably greater had it not been for the fact that there was a general desire among operators to limit their output as much as possible, and thus take advantage of the highly remunerative prices which were prevailing, and which a greatly increased production might tend to diminish.

The output of the various fields compared with that for the previous year is found in the following table, the details being given in barrels, which are roughly taken as representing seven to the ton :—

| State. | 1913. | 1912. |
|---|---|---|
| California | 99,000,000 | 86,450,767 |
| Oklahoma | 62,500,000 | 51,427,071 |
| Illinois | 22,000,000 | 28,601,308 |
| Texas | 14,000,000 | 11,735,057 |
| Louisiana | 12,000,000 | 9,263,439 |
| West Virginia | 11,000,000 | 12,128,962 |
| Ohio | 8,000,000 | 8,969,007 |
| Pennsylvania | 7,000,000 | 7,837,948 |
| Wyoming | 3,000,000 | 1,572,306 |
| Kansas | 2,500,000 | 1,592,793 |
| Indiana | 900,000 | 970,009 |
| New York | 800,000 | 874,128 |
| Kentucky | 500,000 | 484,368 |
| Colorado | 200,000 | 206,052 |
| Other States | 100,000 | — |
| Totals | 243,500,000 | 222,113,218 |

As will be seen, the Californian fields are responsible for by far the largest output, having for the past few years entirely eclipsed their former rivals—the Mid-continental districts.

The year opened with a great over-production, for there were nearly 50,000,000 barrels above ground. Consequently operators set out upon a policy of retrenchment, which resulted toward the end of the year in there being little or no fresh drilling being carried out by any but the largest concerns. To make matters worse, the Standard Oil Company announced that they would not continue to purchase low gravity oil, and as a consequence over 1,500 wells were shut down during the latter part of the year, thus decreasing the output by nearly 20,000 barrels daily.

Yet in spite of these conditions, California produced more oil during the twelve months than at any period during its history, and what is perhaps more important, the bulk of the crude oil raised was of the high-grade nature, known locally as "refining oil." As may be known, the Californian product was at one time considered unsuitable for refining purposes, yet of late years the refiners have paid special attention to the low gravity oil, and it is safe to say that to-day nearly three-quarters of California's total output of crude is treated in some way before it is marketed, the residuum fuel which forms the major portion of the heavy product being found to be quite as suitable for liquid fuel purposes as the crude oil.

When people speak of a probable shortness of oil fuel in the future it is well that they should consider the vast possibilities in the Californian fields, where the already proved oil-bearing land has only been "scratched." So far the number of oil wells drilled in the Californian fields do not number 10,000, and of these not more than 7,500 are producers. The wells already drilled have produced over 100,000,000 tons (700,000,000 barrels), while nearly 10,000 acres of land are known to be capable of good oil production. It is somewhat bewildering, therefore, to contemplate the enormous stores of oil which still await the Californian operator.

One highly satisfactory feature in the Californian situation is the fact that consumption is steadily growing, and the over-production there has been for some years now practically a thing of the past, for production and consumption are going hand in hand. The increase in consumption during last year was particularly marked, being due to the expansion in the refining business and the increased demand for liquid fuel along the coast for marine purposes. At the moment there is an abnormal state of affairs existing due to the shortage of ocean transport facilities. Every large marketing concern, however, is increasing its fleet of oil tankers, and when these additional vessels are in commission the export oil trade of the State will enormously increase. The outlook, therefore, is very promising, and it is safe to predict that the crude oil output of the Californian State during the present year will by far exceed 120,000,000 barrels ; in fact, for the first month of the year it has passed the record figure of 9,000,000 barrels.

The water trouble, which at one time threatened the existence of some of the productive regions, has happily been overcome, and now, by the carrying out of a rigid policy of inspection, there is every reason to believe California will be tolerably free from the water menace in the future.

The following table is interesting as showing the output of the various fields last year as compared with their production for the previous twelve months :—

| | 1913. Barrels. | 1912. Barrels. |
|---|---|---|
| Valley— | | |
| Sunset-Midway | 39,285,031 | 31,608,880 |
| Coalinga | 18,659,229 | 19,570,001 |
| Kern River | 10,211,201 | 12,422,865 |
| McKittrick | 6,686,680 | 6,375,403 |
| Lost Hills | 2,902,141 | 1,336,038 |
| Coast— | | |
| Santa Maria | 5,362,261 | 5,797,656 |
| Lompoc | 1,089,224 | 1,001 373 |
| Summerland | 61,041 | 65,690 |
| Watsonville | 26,660 | 43,250 |
| Arroyo Grande | — | 1,950 |
| South— | | |
| Fullerton | 7,926,229 | 6,847,240 |
| Salt Lake-Los Angeles | 2,940,572 | 3,064,597 |
| Whittier-Coyote | 2,781,000 | 1,088,242 |
| Ventura county | 910,063 | 660,325 |
| Newhall | 113,602 | 110,167 |
| Puente | 28,130 | 29,520 |
| Totals | 99.147,323 | 90,023,207 |

SUMMARY.

| | 1913. Barrels. | 1912. Barrels. |
|---|---|---|
| Valley fields | 77,744,282 | 71,313,187 |
| Coast fields | 6,539,186 | 6,909,919 |
| Southern fields | 14,699,596 | 11,800,101 |

The Mid-Continent field still holds the second place in regard to production, for last year its output was over 65,000,000 barrels, or a gain of 13,000,000 barrels as compared with the output for 1912. The past year in the Kansas and Oklahoma regions (which embrace the Mid-Continent fields, was one of continued activity, for during its run, over 11,000 new wells were drilled in the fields, of which number only 14 per cent. were failures. The chief development of the year was in the Cushing pool, which at the close of the year had

900 producing wells. The Glenn pool attracted less interest, with the result that other localities which had been practically abandoned during the former excitement, again became the centre of active development, and the remunerative level of crude oil prices, tended materially to give an impetus to the search for new fields.

The high-grade fields of Pennsylvania had a total output of 26,000,000 barrels, the figure being slightly in excess of that for the previous twelve months. The substantial advance in the price of Pennsylvania crude during the year from $2 to $2½ per barrel naturally stimulated development, and many wells were cleaned out in order that they might again be put on the list of producers. Wildcatting was prosecuted with much vigour, particularly in the West Virginian fields, but the results were far from satisfactory. Taking the Pennsylvanian regions as a whole the average daily production of the wells last year was under 10 barrels, while in 1912 the average was over 36 barrels per diem. The Illinois fields had a disappointing production during the twelve months in spite of considerable wildcatting for new territory, and their total output of 22,000,000 barrels was over 6,000,000 barrels less than in 1912.

The Texas and Louisiana fields made a very creditable showing for the year with a total production of 25,000,000 barrels. The Caddo region in Louisiana was one of the chief centres for activity, several prolific wells being brought in which were difficult to control. The old-established fields, however, for the most part had a declining production, in spite of many efforts put forward to find new producing lands. The export trade from the Gulf ports was exceptionally active, and the refineries, working on Oklahoma crude oil, were kept continuously busy.

Speaking collectively of the American fields, it is safe to assert that their future expansion lies with the Californian and Mid-continental regions, for when occasion necessitates, the output from these regions can be increased to an almost unlimited extent.

Before leaving America, mention must be made of the Mexican fields, which to-day are attracting such universal attention. The half of the possibilities in store for the Mexican fields has yet to be told, glowing though the accounts already related have been. Thanks to the activities of large interests like those associated with Lord Cowdray, Mexico is rapidly becoming one of the most important oil-producing regions in the world, and when quietude has been restored in the Republic, and when the transport arrangements now in hand are completed, Mexico will be able to pour forth a flood of oil upon the markets of the world which will be in its volume astonishing even to the practical oil man.

## Russia.

Though the Russian Empire as a great oil-producing centre cannot claim to be in the enviable position of either the American or the Roumanian fields, it is about holding its own in regard to its output of crude oil, in spite of the fact that a steady decline is to be noted in regard to the older producing territories of the Apsheron Peninsula. Ever since oil was commercially produced in Russia, the centre of the trade has been Baku with its recognised main producing areas of Saboontchi, Balakhany, Romany and Bebe-Aibat. Recollecting the enormous quantities of oil which have been in years past taken from the Baku fields, it is surprising that the developed land is so comparatively small, being but a few square miles in area. The Baku fields have proved to be of an extraordinarily prolific nature, and it is this one fact which has no doubt induced operators to exploit the limited area to its full extent rather than carry out experimental drilling elsewhere. To-day, however, there are unmistakable signs of a waning output, and this, combined with the fact that consumption of petroleum products is rapidly increasing throughout the Empire, has resulted in the various operating companies recognising that the time has come when either the enormous oil proven yet virgin lands of the State in the Apsheron Peninsula should be commercially operated, or search must be made in other localities for additional sources of crude oil supply. One cannot congratulate the Government upon its policy in this respect, for what with its general demeanour toward the petroleum industry in exacting unreasonable royalties on the one hand, and not being in any hurry to open new territories for exploitation on the other, a position has been created which has rendered necessary the import of foreign produced oil to satisfy the continuously increasing demand at home for liquid fuel. It is evident, however, that the Government is slowly awakening to appreciate the necessity of adopting a different and more fostering policy toward the Empire's petroleum industry, and one looks with more or less confidence to the day when the great assistance which the Government can give to the exploitation of the country's petroliferous wealth will be readily given, for by so doing the Government has everything to gain and nothing to lose.

With these few remarks we will proceed to briefly refer to the details of Russia's output during the past twelve months, an output of crude oil which approximately amounted to 560,000,000 poods.

The yield of crude oil from the Baku fields was again under the total for the previous year, amounting to 389,000,000 poods in all, a fact which shows that the fields as at present exploited are approaching exhaustion. The average daily production of the wells in that locality may now be taken at a little over 1,000,000 poods, and from this figure it is consistently decreasing. One important fact stands out when studying the production of the various wells, and that is the increasing number of those whose total production is under one ton per day. In 1907 this number was 54; to-day it far exceeds 200. But viewed from another standpoint, we have ample evidence of the decline of Baku, for last year's low production was recorded in spite of increased boring activity, for during 1913 no less than 455,000 ft. were bored, as compared with 370,000 ft. in 1912, and 250,000 ft. during the preceding year.

But, thanks to the enterprise of the numerous companies operating in the Russian Empire, new regions are now being commercially opened which are full of promise. There are the Urals, the Island of Tcheleken, the Kuban province and many other districts, not forgetting the important role which Grosny is to play in future, now that its limits of producing territory have been materially extended.

(*To be concluded in the next issue*).

## THE "RUBBER AND OIL" BLACKMAILING CASE.

### A Lesson with a Moral.

Many of our readers must be aware of the fact that for the last few years a publication entitled *Rubber and Oil*, has periodically appeared, severely criticising a number of gentlemen who have been associated with the formation of various petroleum companies in London.

In most cases the criticisms have been of such personal character, and so unjustified, that very little attention has been paid to the contents of that publication, but few of our readers have known that the paper was almost solely conducted with the aim of extorting money from those gentlemen who have been responsible for the conduct of the companies criticised, and it has been proved that in many cases the persons responsible for the publication have succeeded in securing very substantial sums.

The reason for such money having been paid over, was chiefly the desire by the directors of such companies to prevent the shareholders parting with their holdings at unwarrantedly cheap prices.

The severe penalty imposed upon those who have conducted this blackmailing campaign is well deserved, and we trust that no more attempts will be made of such nature, for the harm which is done thereby to the petroleum industry is incalculable.

The question arises, however, as to how it is that in other industries such as mining, etc., there is no blackmailing by means of the "press," while in a comparatively young industry like that of petroleum, such a paper has existed.

There is only one explanation which can be given. It is that whereas in every other industry, the respective trade papers are legitimately supported by everyone interested in that industry, yet in the petroleum industry this whole-hearted support is lacking. If only sufficient support were forthcoming such publications as *Rubber and Oil* would never see the light of day, nor would eminently respectable gentlemen be robbed of finance which could be far better applied.

## THE ANGLO-MEXICAN PETROLEUM PRODUCTS COMPANY ISSUE A MOST EDUCATIONAL BOOK.

Thanks to the Anglo-Mexican Petroleum Products Company, Ltd., a most educational work has been issued during the present week to the world at large entitled "Mexican Oil Fuel," which is worthy of a foremost place in technological literature.

A lengthy review will appear in our next issue, but meanwhile we would congratulate the company's publicity department upon the getting together of such a splendid and serviceable work.

## NEW ZEALAND OIL.

### Satisfactory Cables.

Yesterday (Friday) afternoon the following cable was received at the London office of the Taranaki (N.Z.) Oil Wells, Ltd. :—"The manager reports rotary bore clearing splendidly. Coming on to better oil supplies. Bore No. 5, Moturoa, improving, weekly output 3,750 gallons. Bore No. 3, Moturoa, 1,680 gallons. Shares firmer."

A second cable states that the new well of the Blenheim Company is giving 80 barrels a day. The output is being pumped into the tanks at the refinery.

## NEW ENGLISH COMPANIES.

### THE NORTHERN SALT AND OIL COMPANY, LTD.

Registered on March 13th, by Jordan & Sons, Ltd., 117, Chancery Lane, W.C. Capital, £500 in 1s. shares. Objects: To acquire oil wells, and refineries, etc., in the United Kingdom and elsewhere, and to carry on the business of producers, refiners, and storers, etc., of petroleum and petroleum products, etc. First directors (who are to number not less than two, nor more than five) are L. L. Noar and T. Noar, both of 50, Church Street, Manchester. Private company.

### THE GENERAL PETROLEUM COMPANY, LTD.

Registered on March 13th, by Spyer & Son, Austin Friars House, Austin Friars, E.C. Capital, £3,250,000 in £1 shares (1,700,000 seven per cent. cumulative preference). Objects: To acquire from the Western Ocean Syndicate certain bonds and shares, etc.; acquire any oil or petroleum-bearing lands and options, etc., and to carry on the business of petroleum, naphtha, and oil refiners and merchants, etc; also to enter into an agreement with the Western Ocean Syndicate, Ltd. Minimum cash subscription, £7. Signatories: G. E. Waller, 167, Brondesbury Park, Cricklewood; E. J. Alldis, 18, Macdonald Road, Forest Gate. E.; G. Dickson, 20, Lovelace Gardens, Southend-on-Sea; L. H. Butcher, 52, Gaskarth Road, Balham Hill, S.W.; J. Coneybeare, 32a, Quinton Street, Earlsfield, S.W.; J. Seymour, 62, Woodlands Road, Ilford; and F. J. Wills, 15, Thornton Road, East Sheen, S.W. First directors (who are to number not less than two, nor more than nine) are to be appointed by the signatories. Qualification, 100 shares. Remuneration, £350 each per annum (chairman, £500). Private company.

## BAKU PETROLEUM PRODUCTION DURING FEBRUARY.

### Preliminary Statistics.

The total production of crude oil in the Baku district during February amounted to 36,773,000 poods. The above production includes 5,115,000 poods of spouted oil. The production of the principal firms during the month was as under :—

| | Poods. |
|---|---|
| Nobel Bros. Society ... ... ... | 4,700,000 |
| Caspian-Black Sea Company ... ... | 2,900,000 |
| Zubaloff ... ... ... ... | 2,300,000 |
| Baku Petroleum Company ... ... | 3,800,000 |
| Mantaschaff & Co. ... ... ... | 2,300,000 |
| Mirzoeff Bros. Society ... ... ... | 1,200,000 |
| Benkendorff & Co. ... ... ... | 600,000 |
| Caspian Society ... ... ... ... | 1,100,000 |
| Russian Nafta Society ... ... ... | 1,000,000 |
| Moscow-Caucasian Society ... ... | 900,000 |
| Pitoeff & Co. ... ... ... ... | 800,000 |
| Rilski Trustees ... ... ... ... | 500,000 |
| Asadullaeff ... ... ... ... | 600,000 |
| Aramazd Company ... ... ... | 500,000 |
| Ter-Akopoff Company ... ... ... | 500,000 |
| Petro-Baku Company ... ... .. | 500,000 |
| Nagieff Mussa ... ... ... ... | 500,000 |

# THE MAIKOP SPIES COMPANY, LTD.

## SUGGESTED RE-ORGANISATION.

The Secretary of the Maikop Spies Company, Ltd., has issued the following circular to the shareholders under date of the 17th inst. :—

"Your directors beg to inform you that the resolutions now submitted for the consideration of the Shareholders have for their object the reorganisation of the capital of the company referred to at the last Annual General Meeting, held on the 25th September, 1913.

It will be remembered that this company started business at Maikop with a holding of ten plots of ten dessiatines each. Of these plots, five have been abandoned, three have been sold to the Maikop Victory Company for the sum of £24,000 (of which £5,405 remains unpaid at this date). The company still retains the other two plots with a view to finding a purchaser. In pursuance of the proposals of the directors to quit the Maikop field, the larger part of the plant and machinery has been sold, realising £15,875. The holding shown in the last balance sheet in the Maikop Pipeline and Transport Company has also been disposed of, and has realised £2,803. 10s.

The present position of the company is that its assets represent a total of about £50,000 after providing for all liabilities, with the exception of a debt on current account due to the Spies Petroleum Company, Ltd., of about £13,500. With reference to this amount the Spies Petroleum Company, Ltd., has agreed to accept in satisfaction debentures of the issue mentioned below at par.

It is proposed, when the reorganisation of capital has been accomplished, to create a series of debentures for £50,000 bearing interest at the rate of 6 per cent. per annum, such debentures being convertible for a period of two years into ordinary shares of the company at par. During a period of two years from the date of the first allotment of any of the debentures of this series the Spies Petroleum Company has agreed, in consideration of receiving an option to call 25,279 of the unissued shares of the company, to guarantee interest at the rate of 6 per cent. per annum upon so many of the above-mentioned series of debentures as may for the time being be outstanding during that period. Of the £50,000 debentures the Spies Petroleum Company, Ltd., will, as above mentioned, accept £13,500 in settlement of their claim against this company, and the balance will be offered to the shareholders for subscription.

The authorised capital of the company is at present £260,000 divided into 520,000 shares of 10s. each, of which—

| | | | |
|---|---|---|---|
| there have been issued 441,105 shares = .. .. .. .. | £220,552 | 10 | 0 |
| and there remain unissued 78,895 shares = .. .. .. .. | 39,447 | 10 | 0 |
| | £260,000 | 0 | 0 |

It is proposed to write off as lost or not represented by available assets from the issued capital of—

| | | | |
|---|---|---|---|
| 441,105 shares of 10s. each = .. | £220,552 | 10 | 0 |
| the sum of 8s. per share = .. .. | 176,442 | 0 | 0 |
| which will leave the issued capital at 441,105 shares of 2s. each = .. | £44,110 | 10 | 0 |

It is further proposed that these shares shall, on the confirmation by the Court of the reduction of capital, be consolidated into 10s. shares. In order to arrange for the conversion rights of the debentures and to provide shares for future issue, the authorised capital of the company is to be increased by the creation of £41,442 additional capital, and when the operation is completed the arrangement of capital in shares of 10s. each will stand as follows :—

| | | | |
|---|---|---|---|
| Issued capital .. .. .. | £44,110 | 10 | 0 |
| Unissued capital of old creation .. | 39,447 | 10 | 0 |
| Unissued capital of new creation .. | 41,442 | 0 | 0 |
| | £125,000 | 0 | 0 |

Alterations in the Articles of Association of the company are proposed to enable the Spies Petroleum Company to maintain a majority in number of the directors on the board of this company until June 30th, 1916, and to vary the qualification of the directors. The Board recommends the scheme outlined above to the shareholders, as it reduces the issued capital to a figure which is approximately represented by the present assets of the company, while the proposal to raise further funds by means of debentures obviates the necessity of a reconstruction of the company with an assessment, which would not only be expensive but also difficult to arrange in view of the large number of shares held in the form of bearer warrants. It will be in the recollection of the Shareholders that reference was made at the last general meeting to the proposal of the Spies Company that this company should participate in the formation of a company to acquire certain lands in the Terek Province of the Caucasus. This company has been duly formed under the name of "The Terek General Oil Company, Ltd.," with a capital of £500,000, of which £200,000 has been subscribed in cash.

Your company has subscribed for £50,000, viz., one quarter, of the initial capital, and has received as consideration an option on 75,000 shares for a period of three years from January 10th, 1914, on the following terms :—To subscribe during this period for 25,000 shares at par, 25,000 shares at 22s. 6d., 25,000 shares at 27s. 6d.

Your directors believe that the interest in the Terek General Oil Company will prove a valuable one, and that if shareholders will assist in furnishing funds by subscribing for the debentures referred to above, the prospects for your company should be good.

## PATENTS.

*Specially contributed by Messrs. EDWARD EVANS & CO., Consulting Engineers, Chartered Patent Agents and Enrolled Patent Attorneys of the United States, of 27, Chancery Lane, London, W.C.*

*The undermentioned "Applications Published" are all in the stage in which opposition to the grant of patents upon them can be made.*

*Messrs. EDWARD EVANS & CO. would be pleased to forward a copy of any of the Specifications on request, and on remittance of a P.O. for 1s. to cover cost and postage. They would also be pleased to advise upon the novelty, subject-matter, and value of any invention submitted to them by our subscribers.*

### Applications Published.

**Method or process for treating combustible oils, tar, and pitch.**—William Milton Steadman, of Newlands, Bracebridge, Lincoln. No. 711 of 1913. This relates to a method or process for treating heavy liquid fuels, or solid fuels which may be rendered liquid by heat, particularly crude oils and the tars, and consists in the introduction into a closed chamber or vessel, preferably heated, of the fuels under or subject to the pressure of air and steam, and with the addition of water and naphtha, and agitating the mixture by beaters or by other method or apparatus so as to thoroughly emulsify the oil or fuel under treatment.

**Fuel for internal-combustion engines and process of making the same.**—William Reading Gulick, of 93, Garrison Avenue, Jersey City, Hudson County, New Jersey, United States of America. No. 18,681 of 1913. This relates to a process of making a volatile fuel from crude petroleum or its non-volatile liquid by-products and gasoline, which consists in spraying the petroleum in the vicinity of the gasoline in such way that the particles of the one will be intimately associated with the particles of the other throughout the entire body of the material, agitating the material for several hours, and allowing the composition to stand until the fatty bodies are dissolved, forming a homogeneous, stable mixture which is volatile and which may be used in an explosion motor and ignited by an electric spark.

**Oil burners.**—Christian Mason Heinsen, of Fresno, in the County of Fresno, California, United States of America. No. 15,631 of 1913. This relates to an oil burner having a steam conduit and an oil conduit, each terminating in a nozzle adapted to direct the steam and oil on to a mixing fan, the fuel in its passage to the nozzle contacting with the steam conduit.

**Process for converting mineral hydrocarbons (petroleum and the like) into oil having a lower boiling point.**—Hermann Zerning, of 11, Johann Siegismundstrasse, Halensee, Germany. No. 731 of 1913. This relates to a process for converting mineral oil and other hydrocarbons into more readily vaporisable or more volatile substances in order to extend the utilisation of the hydrocarbon substances, for instance for rendering the material more suitable as motor fluid for internal combustion engines.

**Process and apparatus for the transformation of petroleum and similar hydrocarbons into products having a lower boiling point.**—Georges Renard, of 125, Rue du Trone, Brussels, Belgium. No. 3413 of 1913. This relates to a process for transforming petroleum and similar hydrocarbons or products of lower boiling point, consisting in forcing the petroleum or the like as a liquid stream through an uninterrupted passage, the first part of which is maintained at a temperature above boiling point, and the remainder serves for cooling purposes, the pressure maintained throughout the travel of the fluid being in excess of its vapour tension.

**Apparatus for delivering measured quantities of petrol or other liquids.**—John Walter Flower, of Eclipse Works, Wimborne, Dorset. No. 6688 of 1913. This relates to an apparatus for filling cans and the like with measured quantities of liquid, comprising measures arranged in couples, which are alternately opened by worm gear to a supply and to a discharge pipe in which one valve to each couple controls the supply and outflow of liquid and is turned to and fro by the alternate rotation of a worm on a shaft.

**Process of separating light oils from washing oil and regenerating the latter.**—Heinrich Koppers, of Moltkestrasse 29, Essen-Ruhr, Germany. No. 15,965 of 1913. This relates to a process for regenerating washing oil saturated with light oil which consists in distilling the mixture for separation of light oil therefrom, subjecting the resultant vapours to energetic dephlegmation for condensation of the heavy oil in the vapours and subjecting the resulting phlegm to separate distillation out of contact with the vapours for separation of residual light oil from the heavy oil in the phlegm.

### Applications Filed.

**Liquid-fuel burning apparatus.**—Italo Lertora, David Neil, and Frederick Isidor Sanderson. No. 2,157 of 1914.

**Refining mineral oils.**—Wallace McMullen. No. 2,484 of 1913.

**Production of fuel oil.**—Emma Hoppermann. No. 2,515 of 1913.

**Liquid-fuel burners.**—Thomas Banks Ferguson and Edwin Henry Brown. No. 2,526 of 1913.

**Liquid hydrocarbon burners of the injection type and air-supplying fittings for oil-fired furnaces.**—Henry Birkbeck (Jean Joseph Albert Quantin). No. 2,590 of 1914.

**Cracking oils.**—Oliver Harris Valpy and Owen David Lucas. No. 2,838 of 1913.

**Fire-protecting devices for holds and tanks containing hydrocarbons of any nature and density, alcohol, oils, and other inflammable liquids.**—Georges Adam. No. 2,938 of 1913.

**Distillation or other treatment of mineral oils and residues, applicable also to oils produced in the distillation of carbonaceous materials.**—Carter White. No. 3,306 of 1914.

**Formation of strainer walls for oil presses.**—Harburger Eisen-und Bronzewerke-Akt.-Ges. No. 5,231 of 1914.

**Processes and apparatus for the conversion of heavy hydrocarbon oils into lighter oils.**—Frederick Lamplough. No. 5,248 of 1913.

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# NOTES FROM THE AMERICAN FIELDS.

**The Producers' Company Secures Additional Acreage.**—The Producers' Oil Company of Houston has obtained 200,000 acres of leases and fee lands in the Toyah district of West Texas. The company is to proceed to carry out an extensive programme of drilling over the new lands.

**Mexican Oil for the States.**—On one single day in February, the 22nd, the tank steamer "City of Everett" arrived at New York with a cargo of 26,000 barrels of crude oil from Tampico, Mexico, while on the same day the Standard Oil Company's barge No. 89 also arrived from Tampico with nearly 18,000 barrels of Mexican crude.

**A New Shallow Field.**—The new field of Inola, in the Mid-continental circle, is now attracting considerable attention, and development work is proceeding rapidly, but the output is limited by pipeline facilities. The oil is found at depths of from 550 to 600 ft., and at the present time the locality has an output of about 3,000 barrels daily.

**New Oil Find in Coke County.**—There is much activity in Coke county, about 30 miles above Ballinger, owing to the success which has followed a test well drilled by Messrs. Harris Brothers in the district. Oil was struck at a depth of 165 ft. under a soft strata of sandstone. A new company is now being formed to extensively exploit the district.

**The Standard Oil Company of California.**—This company estimated that during the present financial year it will spend $5,000,000 upon the expansion of its refining plants, the building of a new tank steamer, and additional market facilities round the Californian coast. The average daily production of the company for last year was over 25,000 barrels.

**The Cushing Field.**—A new period of life has been given to the Cushing field by the finding therein of the Bartlesville sand, which has proved so satisfactory as a steady producer. The sand is found at a depth of 2,800 ft., and the Producers' Oil Company, which recently got down to this strata, brought in a well with an initial production of 3,600 barrels per day.

**Another Advance for Californian Heavy Oils.**—It is stated that the officials of the Standard Oil Company are now offering 45 cents per barrel for heavy Californian oil, this making the second advance in one month. It is evident the company looks upon the future as very promising for heavy oil. The effect of the increased prices is seen in the oilfields, where a decided impetus has been given to new drilling in the low-grade oilfields.

**To Shoot the Wells in Wichita County.**—With a desire to considerably increase the output of the producing wells in the Wichita field, nitro-glycerine is to be adopted and the wells shot. One well recently shot increased its output from 15 to more than 100 barrels daily. This was the first experiment of shooting wells in the locality. A nitro-glycerine plant has now been established at Electra for the purpose of supplying the North Texas fields.

**The Old Graciosa Property to be Developed.**—It is stated upon good authority that the Pinal'Dome Oil Company is to commence active development work on the property of the old Graciosa Oil Company in the Santa Maria field, which has been recently acquired on lease. The work will embrace the drilling of new wells and the re-drilling of old ones. The property consists of 6,000 acres, of which not more than 200 acres were ever developed by the Graciosa management. When water broke into the area and spoiled several of the best wells, the company quitted, nothing having been done since that time.

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# THE CALIFORNIA PETROLEUM CORPORATION.

## ANNUAL REPORT.

The annual report of the California Petroleum Corporation for the year ended December 31st, 1913, is about to be issued, the Review has been favoured with an advance copy through the courtesy of Messrs. Salomon and Co.

The statement of income shows that the gross earnings of the California Petroleum Corporation and subsidiary companies for the year 1913 amounted to $2,885,188, and that operating and general expenses were $708,758, leaving a net balance of $2,176,430.

During the year 26 new producing wells were brought in at a total cost during this period of $383,837, all of which sum was charged directly against Profit and Loss.

Expenditures were made for "Additions and Betterments," such as refinery, pipe lines, power plants, buildings, etc., aggregating $319,778, which amount, after deducting 10 per cent. for depreciation, was taken into the Balance Sheet. In addition to the above expenditures for wells actually brought in, and for the "Additions and Betterments," there was expended $105,047 upon wells now being drilled or now ready for drilling, this sum representing "Improvements in progress," carried in the Balance Sheet as a deferred charge. An aggregate of $808,664 was, therefore, applied in one way or another to the physical properties for development, additions and betterments.

The Property Account was closed as of December 31st, 1912, excepting for adjustments. Lease No. 1 (50 acres held under one-eighth royalty) was abandoned and written off against this account. The leasehold property proved so deep and extremely expensive to drill, and the obligations under the lease were so stringent that the management decided to abandon it.

Charges for exhaustion of the oil deposits were made against Profit and Loss aggregating 10 cents per barrel on the gross production of 5,463,600 barrels, amounting to $546,360. Half of this sum, or at the rate of 5 per cent. per barrel, was applied to the reduction of the Property Account, being at a rate more than sufficient on the basis of Mr. Ralph Arnold's appraisal of the property and estimate of the oil content, to amortise the preferred stock. The remaining half, or $273,180, was set up as a special reserve not available for dividends on the common stock, and to be applied to writing down the value of property account or such other uses as your Directors may determine.

The total gross production for the year 1913, was 5,463,600 barrels as compared with 5,700,015 barrels for the year 1912. There have been produced from the properties to December 31st, 1913, approximately 23,096,000 barrels gross oil.

From the 26 new wells brought in at different periods during the year 1913, there have been produced 599,663 barrels gross oil. Total number of wells producing December 31st, 1913, 141; comparing with 120 as at December 31st, 1912. Wells shut in, down and under repairs, 21, comparing with 7 as at December 31st, 1912. Wells drilling, 10, comparing with 11 as at December 31st 1912. No dry holes have been drilled during the year.

The production was adversely affected during the year by the influx of water in certain parts of the property, particularly in parts of sections 30, 19 and 18 in the Coalinga Field. Some progress has been made towards locating and correcting these troubles.

1913.—Sales of Crude Petroleum, 4,863,118 barrels (Revenue, $2,298,821); Sales of Tops, 344,867 barrels (Revenue, $456,924); Total, 5,207,985 barrels (Revenue, $2,755,745).

1912.—Sales of Crude Petroleum, 5,082,886 barrels (Revenue, $2,472,569); Sales of Tops, 17,915 barrels (Revenue, $35,924); Total, 5,100,801 barrels (Revenue, $2,508,493).

Contract No. 1 of the American Petroleum Company calling for a delivery of 5,000 barrels of oil daily, at approximately 61 cents per barrel, has been filled and expired December 31st. Delivery from the American Petroleum Property is now being made under contract No. 2 at 50 cents per barrel.

One of the subsidiary companies, the American Oilfields Company, has in operation upon one of its properties a complete topping plant (refinery) capable of topping 10,000 barrels of oil daily. During the year 1913, there was handled through this plant approximately 2,643,800 barrels of crude petroleum, producing approximately 341,687 barrels, or 12.9 per cent. of tops, which were sold at an average price of $1.33 per barrel, amounting to $454,828. The residuum or remaining oil after the tops were taken therefrom, was then sold at crude oil prices. By handling the oil in this manner, the selling price of all oil so topped (after deducting operating expenses of topping plant) was increased about 11.5 cents per barrel net.

During the latter part of December, 1913, and January of this year, the Company acquired under lease, over 300 acres of land near the Fullerton Oil District, and has started development work thereon. These holdings are thought to be valuable. About 100 acres of this property was acquired in December, and the bonus paid thereon, namely, $7,850, is carried in the balance Sheet for the present as a deferred charge.

On January 3rd, 1914, a flowing well was brought in upon one of the holdings of the Midland Oilfields Company, Ltd. (a subsidiary company). At the end of a 30 day's production period, this well had produced approximately 100,000 barrels of gross oil, and is still flowing under a tremendous gas pressure. The oil is a much higher gravity (24.5 Beaumé) than the average oil produced by your Company. In order to obtain the best results in disposing of the production from this property, a pipe line about fifteen miles in length is now being built, in order to transport this oil to the topping plant, and there separate the lighter products from the crude petroleum. Temporary arrangements for the disposal of the oil from this well have been made pending completion of the pipe line. Since the bringing in of this well, the Company has commenced additional new development work upon this tract of land.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 13/0-14/0 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | $1-1\frac{1}{8}$ |
| 5% Debentures ... ... | 600.000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250.000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 32/0-33/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78.000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 39/0-40/0 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{9}{16}-\frac{11}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1.158.840 | £1 | 21/9-22/9 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/9-4/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{4}-1\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047.610 | £1 | $5-5\frac{1}{16}$ |
| Pref. | 2,000,000 | £10 | $10\frac{3}{4}-11$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/3-22/9 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 714 | 717 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3.400 | 3,425 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 994 | 997 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,400 | 19,500 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,008 | 1,012 |
| Russian Naphtha Society ... ... | 100 | 232 | 233 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 228 | 230 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 33/6 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 89/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | $39/7\frac{1}{2}$ |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 36/0 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/6 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | $5\frac{1}{4}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 26/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 68/9 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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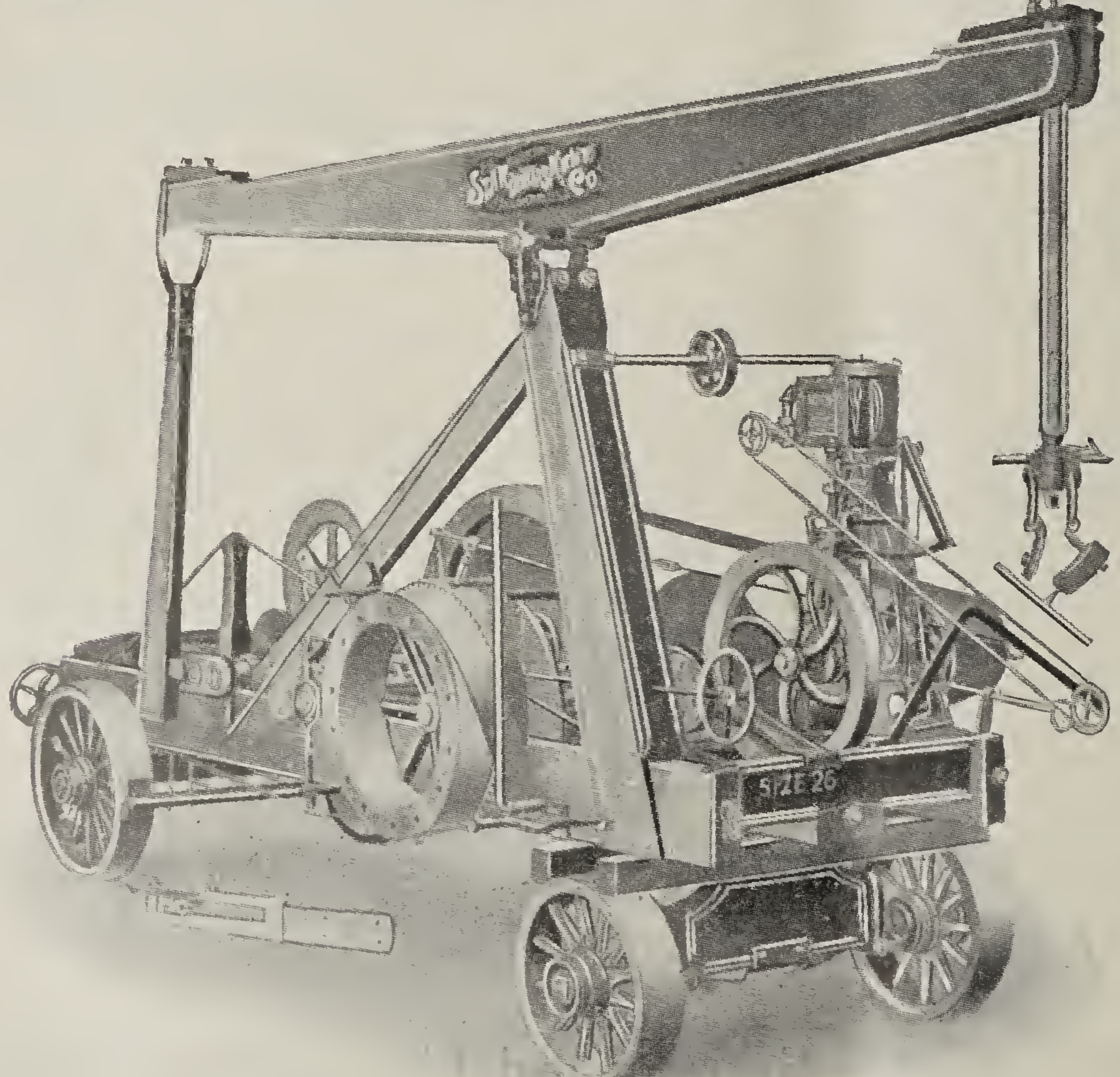

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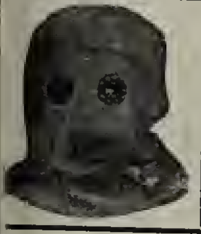
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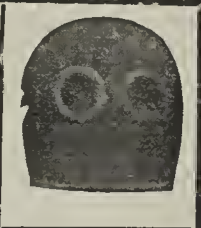
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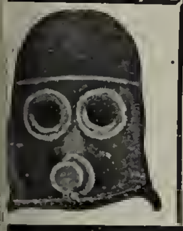
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— THE —
PETROLEUM REVIEW,
45, St. Mary Axe, LONDON, E.C.
American Office: 111, Broadway, New York.

Saturday, March 21st, 1914.

## THE FEVER FOR STATE MONOPOLIES OF PETROLEUM.

As our readers are aware, some two years ago an agitation was commenced in Germany for the purpose of introducing a State monopoly of lamp oil, and the authors of that movement, in placing their scheme before the Government, chiefly fell back upon the statement that the oil trade of Germany was already monopolised by a private firm—the Standard Oil Company—and they therefore argued that it would be much better for the consumers, and also for the State, if such "private monopoly" were replaced by a State monopoly.

This movement of creating a State monopoly last year extended to France. The authors, however, went further—not only to suggest the creation of a State monopoly in illuminating oil, but also in the various products of crude petroleum.

Now we see that the cudgels for such similar monopoly by the State have been taken up by a group of irresponsible persons in Russia, who have gone even further than their forerunners in Germany and France, for they are now advocating a monopoly of the oil-wells themselves and all the products received therefrom.

With regard to Germany, the preliminary Committee of Investigation have found out that the Standard Oil Company does not monopolise the manufacture of illuminating oils in America, for, as our readers can see from the last issue of the Review, there are about 130 independent oil refiners in the United States, and it is evident that if they do not come to Germany and supply the consumers with illuminating oil it is only for the one reason—that the price which the Standard Oil Company supplies its illuminating oil to the consumer is such that it does not pay the independent refiner to market his oil in Germany.

The reason for it is obvious, and this reason our readers will be able to find, again in the last issue of the Review (page 295), where Mr. John D. Rockefeller ascribes the success of the Standard Oil Company to the fact of its consistent policy to make the volume of its business large through the merits and cheapness of its products. It has placed its refineries at the points where it could supply markets at the least expense. It has relied for its profits not only on the marketing of the principal products of petroleum, but has spared no expense in finding a market for all possible bye-products.

We would ask our readers to carefully read over the explanations given by the creator of the largest oil industry in the world and to see whether, in view of such a vast world-wide organisation, it is possible for the German Government, by introducing a monopoly and handling the refined oil, to supply the consumers with a better product and at a cheaper price than the Standard Oil Company is able to do.

Has it ever occurred to the German Government, and to those who are advocating a State monopoly for illuminating oil, that the Standard Oil Company, with its vast organisation for distributing and marketing of its products, has not yet and could not create a monopoly ?

Apart from the 130 independent oil refiners existing and flourishing in the United States, we know that for the last 20 years three independent and very large industrial organisations have started and developed in the world's petroleum market, namely, the "Shell" Company, The Royal Dutch Petroleum Company, and the Mexican Eagle Oil Company, Ltd.

Our readers have been able to follow very closely the birth and growth of these three large enterprises under the able management of such gentlemen as Sir Marcus Samuel, Mr. Deterding, and Lord Cowdray. We know what extensive producing, refining, carrying, and distributing organisations have been created by these three gentlemen, which undoubtedly have, and are bound to have a world-wide position in the future, if not in the same way as the oldest petroleum enterprise—the Standard Oil Company—yet of sufficient importance to have a say in the supply and control of the petroleum products in the world's consuming markets.

In addition to this, there are the very important producers, refiners and distributors like the Burmah Oil Company, the Gulf Refining Company, The Texas Company, and a few others.

In such circumstances and under such conditions, how can those who are " out " for a State monopoly of petroleum in Germany speak of the Standard Oil Company's private monopoly ?

Taking up the movements in France for extending the monopoly not only for illuminating oil, but also the other products, our contemporary, the *Moniteur de Petrole Roumaine*, deals very fully with the subject, and we can only agree with that journal that the introduction of a petroleum State monopoly in France would mean (1) the destruction of the refining industry, which has flourished for so many years ; (2) the closing down of a number of storage accommodations; (3) and what is, in our opinion, the most important, the increase of price of petroleum products to the consumers, and (4) the reduction of production and consumption.

There is one point, however, which our contemporary has forgotten to mention, and that is, the products which will be supplied to the consumer will be of far inferior quality to those which have been supplied by the present distributors.

We need only mention the monopoly of tobacco and matches in France to show what inferior products the French consumer receives under the State monopoly.

But the most insane proposals now brought forward come from some irresponsible persons in Russia, who are suggesting a monopoly of the oil-wells, and also their products. At present, as is known, boring operations in Russia are conducted very extensively by some hundreds of private individuals and firms. In Baku boring operations have to be conducted at the greatest risk possible, and in a great many cases money is irretrievably lost. The new oilfields, although they may be very promising, are of a very speculative nature, and no sane man would suggest that a Government should take up such enterprise.

The same arguments which were brought forward in the case of the State monopoly in Germany can be applied to Russia. It is only by leaving the petroleum industry in the hands of the individual enterprises that it will be possible to develop it to its fullest extent in the future.

The tendencies in the three countries—France, Germany and Russia—to cripple the industry are quite incomprehensible. If it is a question of raising taxes, then there are easier ways to increase the already very heavy taxes which the consumer has to pay in those countries, namely, nearly 3d. per gallon of petroleum products consumed.

After all, why should petroleum be selected and especially ear-marked for increasing the Government's revenue, whereas the gas industry, the electrical industry, and, in fact, a great many other industries, the products of which are of less importance to the consumer than petroleum, are left free ? We are quite willing to give every assistance in the increasing of revenue to the State, provided similar industries will also bear their fair share of such tax.

We have, over and over again, urged upon the Russian Government that if they wished to have cheap liquid fuel, not only for the Government, which is a large consumer of that product for their railways, but for a great many of the leading manufactories, the only way would be to give every possible facility for the proper development of the oilfields, and not exact enormous royalties, which has only been the means of crippling the industry. Secondly, if they were to allow the plant and machinery to be imported into Russia, free of duty (at present plant, machinery, casings, etc., represent 80 per cent. of the cost of operations), this would be the means of stimulating the industry to a vast extent.

They should follow the good example set by the Roumanian Government, who have allowed the free import of the machinery and plant, and owing largely to this privilege the oil industry has developed to such an extent that the Government receives enormous sums in duties on the products received.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MARCH 16th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. | Since Mar. 9. | From Jan. 1. |
| Belgium .. | — | — | 10,040 | 131,510 | — | — | — | — | — | 32,220 | — | — | 590 | 1,270 | 10,630 | 165,000 |
| Canada .. | — | — | — | 4,400 | 5,200 | 23,580 | — | — | — | — | — | — | — | — | 5,200 | 27,980 |
| Dutch Indies | — | — | — | — | — | — | — | — | 3,508,070 | 10,615,870 | 83,400 | 83,400 | — | — | 3,591,470 | 10,699,270 |
| Germany .. | — | 25,050 | 23,950 | 590,370 | — | — | — | — | — | — | — | — | — | — | 23,950 | 615,420 |
| Holland .. | — | — | — | 2,680 | — | — | — | 55,000 | — | 1,597,780 | — | — | — | 590 | — | 1,656,050 |
| Mexico .. | — | 2,238,130 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,580,450 | — | — | — | 5,584,550 |
| Roumania .. | 941,000 | 4,755,390 | — | — | — | 875,000 | — | — | — | 983,380 | — | 1,207,910 | — | — | 941,000 | 7,821,680 |
| Russia . | — | 1,502,000 | 5,690 | 641,870 | — | — | — | — | 1,925,000 | 5,127,880 | — | — | — | — | 1,930,690 | 7,271,750 |
| U.S.A. .. | 7,230 | 23,822,390 | 530,970 | 8,892,550 | 12,510 | 37,190 | 8,760 | 18,809,650 | — | 2,600,410 | — | 1,728,270 | 25,510 | 145,210 | 584,980 | 56,035,670 |
| Other Countries | — | — | 12,240 | 86,140 | — | — | — | — | — | — | — | 1,030 | — | — | 12,240 | 87,170 |
| | 948,230 | 33,342,960 | 582,890 | 10,361,320 | 17,710 | 935,770 | 8,760 | 18,864,650 | 5,433,070 | 21,711,710 | 83,400 | 5,601,060 | 26,100 | 147,070 | 7,100,160 | 89,964,540 |

# NOTES FROM THE CONTINENTAL FIELDS.

## RUSSIAN.

**Opening of Navigation.**—The opening of the navigation this year will be early. Most of the schooners are ready, and the sailing of the fleet of tankers has been planned for April 8th.

**Kalantaroff's Refinery.**—The refinery of E. Kalantaroff in the Blacktown, which has been standing idle for the last ten years, has now been entirely pulled down, and all the machinery, etc., removed.

**Akhverdoff & Co.**—The Terski administration has granted the demand of Messrs. Akhverdoff & Co. to reduce the minimum of compulsory production on the Grosny area on their plot No. 1 from 3,000,000 poods to 2,000,000 poods a year, beginning from 1914.

**New Refinery at Grosny.**—A plot of land has been leased by the Grosny administration to the Company of Russian Petroleum Producers, for the erection of a refinery. The lease is for twenty-four years at a rental of 600 roubles per dessiatine a year.

**Baku Town Petroliferous Lands.**—The geologist of the Geological Bureau has been instructed to report on the petroliferous plots situated within the town area. The report will be ready next April.

**Siezd of the Ural Mining Industrials.**—The Siezd of the Ural Mining Industrials will be opened on March 25th, and the Council of the Siezd of the Baku petroleum producers has been asked to send a delegate, as there will be discussed a question of importance, viz., that of the supply of mineral fuel to the Ural industries.

**Spouter at Surakhani.**—A spouter which broke out from the well No. 40 of the Baku Petroleum Company at Surakhani on the morning of February 19th, yielding over 10,000 poods an hour, suddenly stopped on February 22nd, owing to a cork being formed. During the time of its activity the spouter yielded over 1,000,000 poods of oil.

**Spouter at Ramani.**—On February 25th last, a spouter broke out from well No. 316 on plot 36 of Messrs. Mantascheff & Co. at Ramani. The spouter acted during two days, yielding during this time 20,000 poods of pure oil. On the 27th it stopped, and on the 29th at mid-day it again started, yielding 400,000 poods a day. It stopped in the morning of the 30th for a couple of hours and then recommenced with the same powerful yield.

**Petroleum in the Gori District.**—There are rumours of the discovery of petroleum in the Gori district between the rivers Tedzami and Kavtura. The geologist, Mr. Bogateeff, who has investigated the district, considers that the petroleum deposit begins from the station Kaspi. He also discovered indications of oil at Kavtiskhevi, Samglekhevi, and other localities. The property recently acquired by Mantascheff along both shores of the river Kura is also stated to be petroliferous.

**New Auction Sales of Petroliferous Plots.**—The Ministry of Trade and Industry has decreed the opening on May 24th of this year at Baku of auction sales of State petroliferous plots, viz., seven plots on the Bibi-Aibat area, six plots on the area of the former Ramani Lake, nine plots on the Ramani area, six plots on the Saboonchi area, and seven plots on the Balakhani area. The sales will take place by means of closed declarations for each plot separately. The plans, journals and conditions of the sales can be had from the mining engineer of the Caucasian mining department at Baku.

## ROUMANIAN.

**Cobalesco.**—The general meeting of the shareholders of this company has been fixed for the 29th of this month.

**General Production.**—The general production is maintained at the level of 5,000 tons a day, but there are great hopes for a considerable increase in a short time.

**A.-G. für Petroleum Industrie, Nuremberg.**—This company, which has its head offices at Nuremberg, Germany, has obtained from the Roumanian Government the authorisation to operate and establish offices at Ploeshti.

**Steaua-Romana.**—The production of this company during the past week averaged 927 tons a day, of which 422 tons were obtained at Campina and 304 tons at Policiori. The following wells were in regular eruption :—No. 233 Chiciura, No. 234 Chiciura, and No. 16 Moineshti.

**Reduced Tariffs for the Export of Roumanian Benzine.**—The administration of the Roumanian Railways has promulgated a decree according to which the reduced taxes for the exports of Roumanian benzine by land, which should have expired on December 31st, 1913, will be postponed until March 31st, 1914.

**Prices.**—Prices of crude oil are increasing, the quantities of oil available for immediate delivery being exceedingly small and competed for by the refiners. Contracts for future deliveries are being made at 8·20 francs for Bustenari oil. Prices of products on the interior market are unchanged, with the exception of residuals, which are in very great demand.

**Moreni.**—The Astra-Romana have obtained splendid results during the past week at Moreni, and their production there has increased to 1,400 tons a day. In well No. 1 Colombia, at Moreni-Tzuicani, a great eruption of sand has taken place, which has formed a cork. Well No. 8P of the Romana-Americana, at Moreni, continues to produce about 300 tons daily.

**Amalgamation of the Bacau, Staneshti-Tazlau, and the Danube Oil Trading Company of Roumania.**—The Dutch companies Bacau and Staneshti-Tazlau are calling their shareholders to a meeting to be held this month in order to discuss the conditions of transferring the properties of these two companies to the Danube Oil Trading Company of Roumania.

**Production during February.**—The production of crude oil during February by the companies adopting the new style was as follows :—Romana-Americana, 34,374 tons ; Astra-Romana, 31,249 tons ; Orion, 5,677 tons ; Roumanian Consolidated Oilfields, 4,622 tons ; International, 3,672 tons ; Nafta, 3,044 tons ; Traian Roumanian Oil Company, 1,358 tons ; Aquila Franco-Romana, 1,286 tons.

**Saturn Company.**—The refinery which this company has constructed at Buzau station is now quite completed, and will begin work in about a fortnight's time. The first wagons of crude oil of Bustenari have already been expedited to Buzau in order to be refined there. Next year, when the State pipeline Bacoi-Constanza is operating, the transport will, of course, be made direct by means of the pipeline, which passes quite close to the refinery. The daily capacity of the new refinery is 100 tons.

**Astra-Romana.**—The production of this company now averages 1,314 tons a day, of which 1,065 tons are obtained at Stavropoleos, 136 tons at Bana, 38 tons at Campina, and 55 tons at Filipeshti. At present the production is increasing, owing to the splendid eruptions from well No. 37 at Stavropoleos, the strike of oil in well No. 22 at Stavropoleos, and the eruption of the well No. 23 at Bana. The new well, No. 28, which has recently struck oil, produces 40 tons a day, but is still mixed with a considerable quantity of sand.

## GALICIAN.

**Tloka.**—Tloka, being a new well of the Carpathian Company, has now been completed with a production of 210 tons a day, and thus proves to be the most prolific well in the district.

**Petroleum Cartel Negotiations.**—The negotiations which are at present taking place in Galicia regarding the formation of a petroleum cartel are based on the fixing of an inland contingent as well as on the formation of a central bureau for sales.

**Situation on the Galician Market.**—The situation on the Galician market is most unfavourable. Prices of crude oil have been reduced to 7·90 kronen per 100 kilos., and even at this price the consumers abstain buying in necessary stocks as they expect a further price reduction.

**Critical Position of the Austrian Petroleum Refining Industry.**—The Austrian petroleum refining industry is now in a critical position owing to the deficiency of crude oil, which is hard to get, notwithstanding the reduction in its price. In order to use their entire working capacity the refiners are now considering the production of motor spirit, so that the profits to be made on the latter should partly recoup them for the losses incurred in their ordinary branch of activity.

# THE BRITISH ADMIRALTY AND OIL FUEL.

## COMPLETE LIST OF OIL-BURNING VESSELS.

In a printed reply to Lord Charles Beresford, Mr. Winston Churchill has published the following list of British Warships, built or building, dependent upon oil solely as a fuel, and a supplementary list of the vessels fitted to burn oil as auxiliary to coal. The vessels entirely dependent upon oil include five battleships of the "Queen Elizabeth" class, also the battle-cruiser "Tiger," 18 light cruisers, 109 destroyers, and 36 torpedo boats. The vessels fitted to use oil as an auxiliary total 43 battleships, 17 battle-cruisers, 22 light cruisers, and several smaller boats partly fitted. The names and classes of the vessels are as follows :—

### Vessels Built or Building, for Burning Oil Fuel only.

*Battleships.*—Queen Elizabeth, Barham, Warspite, Valiant, Malaya.

*Light Cruisers.*—Arethusa, Aurora, Galatea, Inconstant, Royalist, Penelope, Phaeton, Undaunted, Calliope, Caroline, Carysfort, Champion, Cleopatra, Comis, Conquest, Cordelia.

*Destroyers.* — Spiteful, Afridi, Ghurka, Cossack, Mohawk, Tartar, Swift, Amazon, Crusador, Saracen, Nubian, Maori, Viking, Zulu, Larne, Lyra, Martin, Minstrel, Acorn, Acheron, Ariel, Badger, Beaver, Archer, Attack, Defender, Druid, Ferret, Forester, Goshawk, Hind, Hydra, Hornet, Jackal Tigress, Lapwing, Phœnix, Sandfly, Alarm, Brisk, Redpole, Rifleman, Ruby, Hope, Cameleon, Comet, Goldfinch, Sheldrake, Staunch, Nemesis, Nereide, Nymphe, Fury-Firedrake, Lurcher, Oak, Acasta, Achates, Ambuscade, Christopher, Cockatrice, Contest, Lynx, Midge, Owl, Shark, Sparrowhawk, Spitfire, Ardent, Fortune, Garland, Hardy, Paragon, Porpoise, Unity, Victor, Leonidas, Lucifer, Laurel, Liberty, Lark, Linnet, Laverock, Landrail, Laertes, Lysander, Miranda, Minos, Manly, Meteor, Mastiff, Mentor, Llewellyn, Lennox, Laforey, Lawford, Louis, Lydiard, Loyal, Lance, Legion, Lookout, Mansfield, Milne, Moorsom, Morris, Murray, Mynges, Matchless.

*Torpedo Boats.*—Nos. 1 to 36 (inclusive).

### Vessels for Burning Oil and Coal.

*Battleships.*—Royal Sovereign, Ramillies, Resolution, Royal Oak, Revenge, Benbow, Emperor of India, Iron Duke, Marlborough.

*Battle Cruiser.*—Tiger.

*Light Cruisers.*—Nottingham, Lowestoft.

### Completed Vessels Fitted to Burn Oil and Coal.

*Battleships.*—King George V., Centurion, Ajax, Audacious, Hercules, Colossus, Neptune, Bellerophon, Temeraire, Superb, Dreadnought, Lord Nelson, Agamemnon, Magnificent, Victorious, Thunderer, Conqueror, Monarch, Orion, St. Vincent, Collingwood, Vanguard, King Edward VII., Commonwealth, Dominion, Hindustan, Britannia, Hibernia, Africa.

*Battle Cruisers.*—Queen Mary, Princess Royal, Lion, New Zealand, Indefatigable, Invincible, Inflexible, Indomitable, Minotaur, Defence, Shannon, Black Prince, Warrior, Achilles, Natal, Cochrane, Argyll.

*Light Cruisers.*—Birmingham, Chatham, Dublin, Southampton, Fearless, Amphion, Active, Blanche, Blonde, Bellona, Dartmouth, Weymouth, Falmouth, Yarmouth, Bristol, Glasgow, Gloucester, Liverpool, Newcastle, Boadicea,

*Torpedo Boat Destroyers.*—Surly.

### Vessels Partially Fitted to Burn Oil and Coal.

Caesar, Hannibal, Mars, Prince George, Majestic, Duke of Edinburgh and Carnarvon.

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## ROUMANIAN PETROLEUM PRODUCTION DURING JANUARY.

The total production of petroleum on the Roumanian oilfields during January amounted to 139,523 tons, as against 152,037 tons obtained during the preceding month, thus showing a decrease of 12,514 tons. The production in the various districts was as follows :—

| | Tons. |
|---|---|
| Prahova ... ... ... ... | 117,884 |
| Dambovitza ... ... ... ... | 4,551 |
| Buzau ... ... ... ... ... | 13,538 |
| Bacau ... ... .. ... ... | 3,550 |
| Total ... . | 139,523 |

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## OCEAN PROPULSION BY OIL MOTORS.

### Launch of the Motor-Vessel "Arabis."

As mentioned in our last issue, this cargo motor-vessel, one of the first of large size constructed in this country, which is being built by Messrs. Swan, Hunter & Wigham Richardson, Ltd., of Neptune Works, Newcastle-on-Tyne, to the order of the Flower Motor-Ship Company (Messrs. M. Samuel & Co., managers), the hull being constructed at the Middlesbrough yard of Messrs. Smith's Dock Company, Ltd., and the motors being built at the Neptune Engine Works of Messrs. Swan, Hunter & Wigham Richardson, Ltd., was successfully launched at Middlesbrough last week.

The vessel will carry nearly 6,000 tons deadweight. The pumping arrangements are very complete. She has complete gear for handling cargo, including eight steam winches. Oil fuel is carried in all the double bottom tanks and also in fore and aft peaks, with special heating and pumping arrangements.

The "Arabis" is being built to Lloyd's highest class, and will have Suez Canal certificate, and both hull and machinery are being constructed under the supervision of Messrs. Flannery, Baggallay & Johnson, Ltd. The vessel is of the following dimensions: Length B.P., 350 ft., breadth moulded, 47 ft., depth, 27 ft., and she will have a mean draft of about 21 ft. 6 ins. and spacious tween decks 8 ft. high, available for the pilgrim traffic and for military transport.

The vessel is fitted with twin screw Diesel motors of the Polar type, working on the two-cycle principle, with four working cylinders on each motor and developing 1,150 b.h.p., built by Messrs. Swan, Hunter & Wigham Richardson, Ltd., and possessing many special features of detailed improvements in the design.

Two ample powered donkey boilers are being fitted for supplying steam for the deck machinery and for the steering gear and electric light, and are being arranged to burn coal and oil fuel, and also to work economically at sea by the exhaust gases from the main propelling motors.

## PRODUCTION OF ROUMANIAN FIRMS DURING 1913.

THE following table shows the outputs of the principal Roumanian firms during 1913 as compared with 1912; also the number of metres bored by each firm during the twelve months :—

| | Production during | | Metres bored during | |
|---|---|---|---|---|
| | 1913. Tons. | 1912. Tons. | 1913. | 1912. |
| Astra-Romana | 444,025 | 447,790 | 16,661 | 16,841 |
| Steaua-Romana | 402,360 | 411,752 | 25,494 | 21,204 |
| Romana-Americana | 333,228 | 206,147 | 9,291 | 7,595 |
| Colombia | 226,770 | 209,630 | — | — |
| Concordia | 83,127 | 140,068 | — | 7,772 |
| Orion | 75,274 | 74,152 | 6,915 | 6,198 |
| Roumanian Consolidated Oilfields | 62,681 | 47,976 | 5,340 | 6,036 |
| International | 41,451 | 74,665 | 2,314 | 2,744 |
| Alfa | 27,888 | 16,433 | 1,682 | — |
| Nafta | 23,066 | 14,372 | — | 2,753 |
| Trajan Roumanian Oilfields | 22,621 | 26,598 | 1,023 | — |
| Aquila-Franco-Romana | 17,700 | 15,959 | 1,795 | — |
| Anglo - Roumanian Petroleum Company | 12,974 | 12,309 | 1,468 | 922 |

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| | |
|---|---|
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| HOUSTON OIL COMPANY ... ... | HOUSTON, TEXAS. |
| RIO BRAVA OIL COMPANY... ... | HOUSTON, TEXAS. |
| NEILS ESPERSON ... ... ... | HOUSTON, TEXAS. |
| THE TEXAS COMPANY .. ... | HOUSTON, TEXAS. |
| MARGY OIL COMPANY ... ... | HOUSTON, TEXAS. |
| KERN TRADING AND OIL COMPANY | CALIFORNIA. |
| EAST COAST OIL COMPANY .. | MEXICO. |
| S. PEARSON & CO., and SUB. CO.'S | MEXICO. |
| FREEPORT MEXICAN OIL CORP. ... | MEXICO. |
| SIMMS & BOWSER ... ... ... | TEXAS AND MEXICO. |
| MEXICO NATIONAL OIL COMPANY | MEXICO. |
| GULF MEXICAN PETROLEUM CO.... | MEXICO. |
| OILFIELDS COMPANY ... ... | MEXICO. |
| MEXICAN FUEL OIL COMPANY ... | MEXICO. |
| GULF PIPELINE COMPANY... ... | TEXAS. |
| GULF PIPELINE COMPANY... ... | LOUISIANA. |
| SUN COMPANY ... ... ... | TEXAS AND LOUISIANA. |
| HIGGINS OIL AND FUEL COMPANY | TEXAS AND LOUISIANA. |
| HEYWOOD OIL COMPANY ... ... | TEXAS AND LOUISIANA. |
| ATLAS OIL COMPANY ... ... | LOUISIANA. |
| CAYCE OIL COMPANY ... ... | LOUISIANA. |
| VIVIAN OIL COMPANY ... ... | LOUISIANA. |
| S. A. GUY ... ... ... ... | SHREVEPORT, LOUISIANA. |
| PASSADINA OIL COMPANY... ... | SHREVEPORT, LOUISIANA. |
| PURE OIL COMPANY ... ... | SHREVEPORT, LOUISIANA. |
| SHARP & SLOAN ... ... ... | MEXICO. |
| CAFFREY MARTELL ... .. ... | JENNINGS, LOUISIANA. |
| VINTON PETROLEUM COMPANY ... | VINTON, LOUISIANA. |
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# MISCELLANEA.

## KEROSENE IMPORTS INTO YOKOHAMA.

THE imports of kerosene into Yokohama during January amounted to 489,981 gallons, and were valued at 2,106,918 yen, as compared with a total of 552,970 gallons, of a value of 2,156,583 yen, imported during the corresponding period of last year.

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## THE STANDARD OIL COMPANY AND MEXICO.

### The Concession to be Annulled.

IT is reported, says the Mexican representative of the *Oil Paint and Drug Reporter*, that the concession granted to the Standard Oil Company by the Federal Government during the Madero Administration for the construction of a pipeline in the States of Vera Cruz and Tampico will be cancelled by the Huerta Government. The action will be taken upon recommendation of Jose Maria Lozano, Minister of Communications and Public Works, it is stated, who has objected to the terms of the concession. In addition to the right of way for the pipeline, the concession gave the Standard Oil Company a grant of twenty kilometres of land on both sides of the line.

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## ANOTHER IMPORTANT WELL IN TRINIDAD.

THE Trinidad manager of the Cruse Syndicate, Ltd., cabled on the 14th inst. that well No. 2 had been flowing at the rate of 1,500 barrels per day since March 11th. This well is situated close to the famous Stollmeyer well, and near the scene of the Shell Company's present operations.

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## DIESEL-ENGINE-PROPELLED SHIPS OF THE EAST ASIATIC COMPANY.

THE chief interest in the annual report of the East Asiatic Company, Ltd., as far as REVIEW readers are concerned, is that associated with the oil-engined ships connected with the fleet. The vessels now in service are the "Selandia" and "Jutlandia," each with Diesel engines of 2,500 horse-power, and "Annam" and "Siam," with engines of 3,300 horse-power. Regarding the year's working of the vessels, the directors state that they have amply fulfilled the hopes expressed in the two preceding reports, having worked satisfactorily in every respect, and realised considerably larger net profits than the steamers. Work is far advanced in the substitution of Diesel for steam engines in the "Bandon," "Chumpon," and "Pangan," vessels of about 3,480 tons, with machinery of 1,600 horse-power. These vessels are expected to be refitted in April, May, and June respectively. The steam-engines taken from these vessels are to be fitted into the "Transvaal," "Rhodesia" and "Natal," three vessels, each of 4,000 tons and 7,000 tons deadweight. The adoption of steam machinery in these vessels, in preference to oil-engines, is probably due to the fact that they are intended for the South African trade. In addition, there have been contracted for, to be delivered during this year or next year, five more motorships: the two largest, the "Malakka" and the "Tongking," will each be of 10,000 tons deadweight capacity, with engines of 3,300 indicated horse-power; the "Fionia," of 7,000 tons deadweight capacity, with engines of 4,100 indicated horse-power, and the "Falstria" and "Lalandria," each of 7,000 tons deadweight capacity, with engines of 2,500 indicated horse-power. The directors state that, in view of the success of the Dieselmotors, the company have decided to build a sailing ship of a little over 5,000 tons deadweight capacity, with a large spread of canvas, giving her a fair speed in the wind zones. This ship will be fitted with an auxiliary screw driven by a Diesel motor of about 600 horse-power, which will give the ship a speed of about 7 knots in calm weather, and so carry her through the calm and variable zones. This ship will be utilised for the training of officers and crew for the company's motor and steam vessels. The total fleet of the company will then have a gross tonnage of 37,000 tons, and a deadweight carrying capacity of 67,000 tons, and will be engaged not only on the Siam service, but on the China, Japan, West Indian and Pacific routes.

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## OUTPUT OF THE BAKU REFINERIES DURING DECEMBER, 1913.

THE output of petroleum products from the Baku refineries during December was as under :—

| | Distillate. Poods. | Refined. Poods. |
|---|---|---|
| Kerosene ... ... ... | 7,907,317 | 7,651,131 |
| Solar oil (light) ... ... | 385,174 | 7,756 |
| " " (heavy) ... | 303,174 | — |
| Lubricating oils ... ... | 2,042,187 | 1,805,795 |
| Residuals ... ... ... | 12,264,018 | — |
| Benzine .. ... ... | 1,451,622 | 139,368 |
| Lubricating residuals ... | 3,253,416 | — |
| Goudron ... ... .. | 12,821 | — |
| Paraffin ... ... ... | 4,251 | — |
| Refined Paraffin ... ... | 4,912 | — |
| Total ... | 27,628,892 | 9,604,050 |

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## THE OUTPUT OF THE ROUMANIAN REFINERIES.

### Statistics for December, 1913.

DURING December there were treated in the Roumanian refineries 139,688 tons of crude oil, from which 136,987 tons of products were obtained. The following table shows the details of the deliveries for inner consumption and stocks :—

| | Produced in the Refineries. Tons. | Delivered for Inner Consumption. Tons. | Used for fuel in the Refineries. Tons. | In Store on Dec. 31st. Tons. |
|---|---|---|---|---|
| Benzine ... | 33,772 | 2,976 | — | 66,745 |
| Kerosene ... | 30,064 | 6,786 | — | 145,466 |
| Lubricating oil | 4,354 | 2,663 | 68 | 17,348 |
| Residuals ... | 68,796 | 54,816 | 11,192 | 62,417 |
| Totals ... | 136,986 | 67,241 | 11,260 | 291,976 |

# LOWERING THE BOILING POINTS OF PETROLEUM

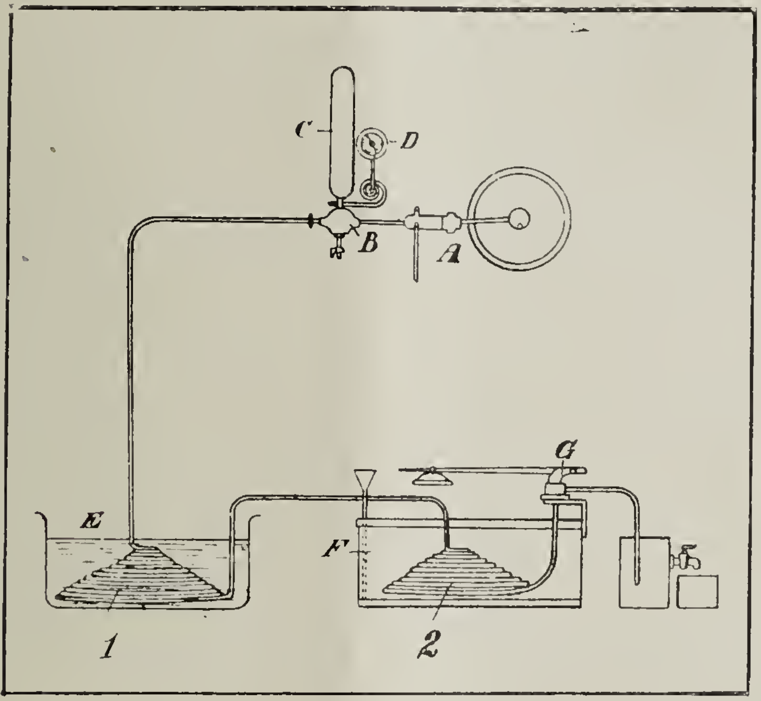
## TWO INTERESTING NEW PROCESSES.

An English patent has recently been granted to Mr. G. Renard, of 125, Rue du Trone, Brussels, for a process and apparatus for the transformation of petroleum and similar hydrocarbons into products having a lower boiling point.

The invention relates to a process for transforming petroleum by the application of heat and pressure. In this connection it has been proposed to force the hydrocarbon under pressure through heated piping in which its temperature is raised above boiling point, the heated liquid being then allowed to escape and vaporise in a heated chamber from which it is led away and condensed.

According to the present invention, the petroleum or similar hydrocarbon is forced as a liquid stream through an uninterrupted passage, the first part of which is maintained at a temperature above boiling point, and the remainder serves for cooling purposes, the pressure maintained throughout the travel of the fluid being in excess of its vapour tension.

In carrying out the process the inventor adopts a temperature of from 400° to 450° C. and a pressure of 40 to 50 atmospheres; these conditions give rise to the formation of new atomic groupings and novel products with a lower boiling point than the petroleum or other hydrocarbon subjected to the treatment.



A convenient form of apparatus for carrying the process into effect embodies a continuous length of tubing the first part of which is heated to serve as a superheater, and the remainder cooled to serve as a cooling device, means being provided at one end for forcing the liquid through the tubing, and means at the other end for offering resistance to the free passage of the liquid, and thereby maintaining a pressure upon the liquid.

The superheater part of the tubing may be immersed in a molten lead bath whilst the cooling part is immersed in a water bath, the two parts being uninterruptedly connected, but situated at a convenient distance from one another.

The accompanying drawing shows diagrammatically a suitable apparatus used in carrying out the process. 1 designates the superheating part and 2 the cooling part of a single length of high-pressure steel tubing, the two parts being arranged in series and forming a continuous uninterrupted watertight conduit.

At the inlet end of the tubing a pump A is arranged; there is also provided a non-return valve B, an air chamber C, and a pressure gauge D; the pump serves as a means for introducing the liquid petroleum or similar hydrocarbons into the tubing. The superheating part 1 is placed in a molten lead bath E which maintains the required heat, which is evenly distributed through the length of this part. The cooling part 2 is immersed in a water bath F, and serves to cool the liquid that has been subjected to superheating in the part 1.

The outlet of the tubing is provided with a pressure governor G, which permits of maintaining the required pressure throughout the tubing. This pressure is suitably regulated to be superior to the tension of the vapours at the temperature of the superheating part 1 so that there cannot be any vaporisation of the liquid under treatment, whereby the latter traverses the whole of the length of the tubing in a liquid state.

The superheating part 1 is of great length proportionately to its diameter, so that the liquid traversing the same will be subjected to the action of heat for a long time, the speed of travel also being determined to that end.

In using the apparatus the pump A is started and fed with the liquid. The pressure governor G provided at the outlet end of the cooling part 2 is slightly opened so as to permit the escape of air and the filling of the whole length of tubing with liquid. This having been done, the governor G is then so regulated that the pressure gauge D indicates about 40 atmospheres; it is under this pressure and at a heat of about 400°-450° C. that the liquid hydrocarbon is made to progress through the tubing. The issuing cooled hydrocarbon is collected at the outlet end of the part 2. The petroleum has formed new atomic groupings owing to the influence of the conditions obtaining in the tubing.

By subsequent distillation the product can be separated into substances having different densities.

The apparatus acts in a manner somewhat similar to a sealed tube used in chemical laboratories, but the duration of the application of the heat is determined by the speed of travel of the liquid or the length of the superheating part 1 of the tubing; this length may attain 300 metres in commercial applications.

From another point of view the apparatus constitutes a kind of Papin's digester with continuous action adapted to work at an exceedingly high pressure without the least danger of explosion.

A distinctive feature of the apparatus is that it possesses a considerable heating surface as compared with the small volume of liquid travelling in the tubing. This surface is, in fact, 1 square metre for every 1,177 cubic centimetres of liquid. It may be mentioned that a length of tubing that has been found satisfactory was composed of nickel steel and measured 10 mm. inside diameter, 21 mm. outside diameter, and 60 metres long.

* * *

Another patent for an invention designed to achieve somewhat similar results has been granted to Hermann Zerning, of 11, Johann Siegismundstrasse, Halensee, Germany. This invention relates to a process for converting mineral oil and other hydrocarbons into more readily vaporisable or more volatile substances in order to extend the utilisation of the hydrocarbon substances, for instance, for rendering said materials more suitable as motive fluid for internal combustion engines.

The improved process consists substantially in mixing hydrocarbons with natural gases or with the vapours or gases resulting from the decomposition of hydrocarbons. The mixing may be effected under pressure and until the hydrocarbons are fully saturated with said gases or vapours. When applying the process the proportion of benzine-like substances of said hydrocarbons is increased, the added benzine-like substances providing a more volatile substance the flash point of which is lower.

For instance, if the natural gases escaping when mineral oil is being pumped are pressed through hydrocarbons (petroleum and the like), the hydrocarbons absorb a more or less great amount of gases according to the composition of the said gases and to the degree and duration of the exerted pressure, the specific gravity of the hydrocarbons being generally reduced thereby, whilst their volume is increased.

When distilling hydrocarbons treated by the above process readily volatile products of substantially benzine-like character are obtained.

The oil residues left in the retort during the distilling process may be repeatedly treated with natural gas according to the above process.

Instead of natural gases, which are generally absorbed or dissolved with difficulty, other gases of similar composition may be used. Gases of this kind, which are readily absorbed, may be obtained for instance by decomposing mineral oils, petroleum or heavy hydrocarbons preferably in presence of suitable catalytic or contact substances, and at a comparatively high temperature, such substances are for instance most metals, metal oxides, and superoxides, hydrogen dioxide and ozonised water, and finally the most convenient and cheapest of all: water.

Water, together with the hydrocarbons, is forced into or through a tank heated at about 300° to 400° Celsius. The vapours being evolved are conveniently conveyed through dark red hot pipes, then through cooling ducts in which the separation between water, oil and tarry hydrocarbons is effected, whilst the gases are directly introduced into receiving hydrocarbons or collected in gas reservoirs for being used later on.

As the amount of water or other catalytic or contact substances and the temperature ought to be conveniently varied according to the composition of the hydrocarbons to be vaporised, one example of the process will be hereinafter set forth:

A suitable vessel, being preferably in the shape of suitably disposed piping (surrounded with fire clay or the like which prevents calcination of the oil), is heated, after which petroleum and water are injected by means of pumps or the like. The pipes ought to be heated to such an extent that the temperature of the converted petroleum and water reaches about 300° Celsius. The injection of both substances is regulated preferably in such a manner that about one part of water is fed simultaneously for every six to ten parts of hydrocarbons.

Steam and vapours produced are conveyed through an incandescent piping in quantities depending upon the length of the pipes and the temperature of same. Precise proportions cannot be indicated, but care must be taken that the vapours do not flow too slowly through the hot pipes in order to avoid too complete a decomposition, which would cause the formation of a great quantity of carbon and consequently an unsatisfactory result.

With the piping is connected a cooling device in which the water, oil and tarry substances are condensed and separated from each other, whilst the gases are directly led into a number of receivers into which the hydrocarbons to be treated have been conveyed. As a rule a great pressure ought to be avoided within the receivers, because in such event the vapours would flow too slowly through the hot pipes.

For this reason it is more convenient to collect the gases and vapours in a gas reservoir, and to force same in closed circulation through the hydrocarbons by means of force pumps, which process avoids losses of gas and secures a higher output. The non-absorbed gases may be used as heating material.

The substance now contained in the receivers is very different from the original hydrocarbons or petroleum conveyed therein. For instance: the gases leaving the pipes being directly injected under a slight pressure into petroleum or hydrocarbons, the specific gravity of which is 0·794, its flash point being that of usual commercial petroleum, the resulting material in the receiver is a hydrocarbon having a specific gravity of 0·775 and a flash point of about 10 degrees. When the pressure is increased, the corresponding figures are more satisfactory. The hydrocarbons prepared may be used without further treatment as a fuel for internal combustion engines and the like.

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## EXPORT OF PETROLEUM PRODUCTS FROM ROUMANIA DURING DECEMBER.

The total exports of Roumanian petroleum products during December amounted to 91,844 tons, as against 75,567 tons exported during December, 1912, thus showing an increase of 16,277 tons. The following table shows the exports of various products to the various importing countries:—

| | Residuals, Lubricating Oil, Gas Oil, etc. Tons. | Kerosene. Tons. | Benzine. Tons. |
|---|---|---|---|
| England | 9,272 | 6,249 | 2,851 |
| Austria-Hungary | 1,836 | 40 | 602 |
| Belgium | — | — | 63 |
| Bulgaria | 1.015 | 716 | 187 |
| Egypt | 4,643 | 11,569 | — |
| France | — | 106 | 10,478 |
| Greece | 86 | 3,413 | 67 |
| Italy | 4,330 | 5.086 | 1.457 |
| Turkey | 108 | 3,526 | 120 |

# THE PROGRESS OF LIQUID FUEL.

## IMPORTANT ADDRESS BY MR. J. VEITCH WILSON.

At the Institute of Marine Engineers last Monday week Mr. Veitch Wilson read an interesting and at the same time an important paper on the question of "Liquid Fuel."

Mr. Wilson, in the course of his address, said :—

Having regard now to the various suggestions which underlie the expression "Liquid Fuel," I think that we may deal with these under the following headings, and in the order in which I give them: Liquid Fuel, Historical; Origin and Constituents of Petroleum; Combustion or Oxidation; Surface Combustion; Utilisation of Liquid Fuel; Utilisation—Early Devices; Utilisation—Modern Practice; Internal Combustion Engines; Nature and Properties of Liquid Fuel; Fuel Values—Thermal and Commercial.

Upwards of fifty years ago I occupied the useful, if not lucrative, position of office boy in a shipping house in Greenock, where we were visited by many American ship-masters, who, in their leisure, used to entertain us youngsters with startling tales of the wonders of their great continent. Among these tales I remember two. The first was that they obtained oil from bore-holes or wells, as we do water in this country; the second, that, in the event of any political complications arising between our respective countries, they "guessed" they would just tow our old island across to their side of the pond and settle matters there. We accepted both statements with the respectful incredulity to which they seemed to be entitled. That would be about 1860, the time of the American Civil War, and you may remember, although I did not know it then, that petroleum had been discovered in America in 1859.

In 1863 I transferred my services to a firm of petroleum mporters in Glasgow, where I soon learned that the "Yankee skippers'" tales of oil, which we had discredited, were not entirely of the order of the Arabian Nights, but were founded upon substantial facts. This little incident, insignificant enough n itself, is interesting to me as fixing indelibly in my mind the birth, though it was destined to a long period of adolescence, of the liquid fuel industry. For, although James Young, the father of the mineral oil trade, had taken out his famous patent n 1850, it must be remembered that he only contemplated the production of lamp oil, lubricating oil, and paraffin wax, and did not deal with other articles.

Therefore, it was not till Colonel Drake "struck ile" on August 28th, 1859, in Venango County, Pennsylvania, and revealed to an astonished world the possibilities of illimitable supplies of a new and strange material, that the first suggestion was offered that the monopoly long enjoyed by coal and wood and peat as the only practicable fuels for industrial purposes, was about to be challenged by a new competitor.

It is strange now to reflect that, although petroleum, to give t its modern name, had been unknown to Western civilisation till ts discovery in America by Colonel Drake in 1859, it had been known to Eastern nations for upwards of 3,000 or 4,000 years, and had been an article of commerce for several centuries before Europeans were aware of its existence.

It is now generally conceded that, in the frequent references n the Old Testament, from the days of Noah, upwards of ,000 years B.C., to bitumen, pitch, and slime, some kind of earth or rock oil is meant. Thus we read that:—

3300 B.C., Noah was ordered to make an ark of Gopherwood, nd to "pitch it within and without with pitch."

2300 B.C., in reference to the Tower of Babel, "bricks had hey for stone, and slime had they for mortar."

2000 B.C., we find the statement that "the vale of Siddim (now upposed to be the Dead Sea) was full of slime pits."

1500 B.C., "He made Jacob to suck honey out of the rock and oil out of the flinty rock."

1500 B.C., Job says, "and the rock poured me out rivers of il."

Turning to profane history, we find, according to Herodotus, that the Zoroastrians, the "fire worshippers" of Persia, about 450 B.C., worshipped the eternal fires which they found in the neighbourhood of the Black Sea. It is, however, now assumed that the flames which they regarded with superstitious awe proceeded from some natural gas escaping through a fissure in the rocks or from some little oil spring oozing through the ground and accidentally ignited. This probably happened in the neighbourhood of the peninsula of Apsheron in the Caspian Sea, but the commercial value of the wells was not realised till the thirteenth century, when they became the subject of much fighting for their possession on the part of Persians, Armenians, and Russians, the victor, for the time being, taking the wells and their produce for his reward. After many changes of owners, the coveted prize finally (about 1800) fell into the hands of the Russians, who still hold it.

Suffice it now to say that, with the benefit of scientific development and abundant capital, the Russian fields contribute about one-fifth to the world's total production of oil.

If it is strange that Europe should have remained so long in ignorance of the great oil industry which was being carried on almost at its eastern gate, it is less to be wondered at that she should have been equally ignorant of a similar industry which had been carried on unobtrusively in the farther east. I refer to the mineral oil wealth of Burma, a country now under British sway. One of the first writers to call attention to Great Britain's oil resources in India was the late Charles Marvin, at one time a clerk in the Foreign Office, who got himself into trouble and disgrace by the premature and unauthorised publication of a certain treaty with a foreign power. Thereafter he betook himself to journalism and seems to have given special attention to the Russian and Indian oilfields. Subsequently, with a prophetic vision of the part petroleum was likely to play in industrial developments, and of the importance attaching to Britain's command of her share of the world's supplies, he published, between 1884 and 1889, a series of lurid pamphlets with such startling titles as, "Baku the Petrolia of Europe," "Moloch of Paraffin," "Coming Deluge of Russian Petroleum," "England a Petroleum Power," "The Coming Oil Age and the Great Canadian Oilfields." The first of these pamphlets was published thirty years ago, and their author's predictions have been amply verified. Burma having been for centuries a *terra incognita*, it is difficult to obtain any information regarding its early history or its industries, but it seems to be generally accepted that its oil trade had its origin in prehistoric times, and, that for centuries before the country was opened up to Europeans it had sent its products to India and other neighbouring countries. Marvin says that "An account published by Colonel Symes, in 1795, mentions that there were then 500 wells in operation, the estimated annual yield being 90,000 tons. Two years later Captain Cox estimated the yield at 92,781 tons. In 1835 Captain Hannay described the output as being still about 93,000 tons." In the United States Geological Survey for 1912, India, mainly Burma, is credited with 1,000,000 tons. For the same year and by the same authority, Canada, the other British oilfield, is credited with 39,000 tons.

As throwing further light upon the antiquity of Eastern petroleum, I quote a few words from a recent book, "Petroleum, the Motive Power of the World," by W. S. Tower and J. Roberts, who say:—

"Among the nations of the Far East, the knowledge of bitumens goes far back into the ages of the dim past. The ancient records of China describe the use of natural gas for both fuel and light centuries before the Christian era. Japanese history says that the 'burning water,' as petroleum was called, was first discovered and used about A.D. 615."

My purpose in occupying so much of your time in showing you the antiquity, and the wide distribution of petroleum is to suggest that if, by spontaneous exudations and accidental discoveries, so much has already been found, it seems reasonable to suppose that the world is saturated with oil, and that, by systematic investigation, supplies are likely to be discovered in every habitable quarter of the globe and in greater volume than those of our coal measures which are rapidly approaching exhaustion.

Complete returns for the world's production of petroleum for 1913 are not yet available.

The increase in 1913, as compared with 1912, shows 20.000,000 barrels—about 2,781,700 tons.

Having given you a hasty sketch of the early history of petroleum, we may now devote a few minutes to consideration of its origin and its composition.

Origin.—I remember that, in the early days of the mineral oil trade, much interest and speculation were aroused among those who were engaged in the trade themselves, and many who were outside it, regarding the origin and nature of the mysterious liquid. Three theories had their respective advocates.

(1.) The first, and probably most popular, was that the oil, like coal, was of vegetable origin, and was due to subterranean distillation, the gases rising till they encountered some cooler strata, in which they were condensed, and in which they lodged until they were released by some enterprising borer.

(2.) The second theory was that the oil was produced from beds of myriads of animalculæ (either land or marine), from which oil was produced by natural distillation and condensation, as in the case of No. 1.

(3.) The third theory was that the oil was produced by the action of heat and water upon the elements of which the world was composed, the carbon of the earth combining with the hydrogen of the water to produce the liquid hydro-carbons which we, after untold thousands of years, are now turning to profitable account.

Similar discussions raged about the origin of coal and shale oils. But, as in this case the coal and shale remained to tell their own tale, it was more easy to arrive at reasonable conclusions regarding the circumstances and conditions under which they were produced. And as, on careful examination, it was found that some shales contained evidences of animal life, in the shape of myriads of microscopic shells, while others afforded equal indisputable evidence of their vegetable derivation, it is probable that we owe our supply of coal and of shale in part to both sources, and it is not unreasonable to suppose that petroleum may also have a similar dual origin.

But, while there may be room for discussion regarding the particular channels through which these elements of heat and light have been handed down to us, there can be no question that they are all derived from one common source. the sun's rays.

In regard to this I should like to quote to you an eloquent and illuminative passage from a strange and unexpected authority upon mechanical matters. My author is Dr. F. W. Pavy, a distinguished professor of Guy's Hospital. His work, to which I now refer, is "A Treatise on Food," in which he traces animal life and force backwards to the prime source, the solar rays.

He has just said that while no addition can be made to the material of the world:—

"Except from the inconsiderable accessions derived from the occasional descent of a meteoric body, it is otherwise with regard to force, which, as heat and light, is constantly being transmitted to us from the sun; and, it is from the force thus derived, that life on earth originated and is maintained. Our coalfields, our forests, and vegetable products generally, may be regarded as containing a store of force accumulated from the vast supply continuously transmitted with the sun's rays; and, upon the principle of 'indestructibility' which has been enunciated, the force which has been employed in unlocking the elements in the combinations from which vegetable products are built up, and in forming new compounds, is contained in such compounds in a latent state.".

Then the doctor goes on to say that the energy transmitted by the sun's rays thousands of years ago may:—

"By oxidation, be set free in an active state under some form of manifestation or other. It matters not in what way—whether rapidly or slowly, or under what circumstances—whether inside or outside the living system, the oxidation occurs; the result is the same, as far as the amount of the force liberated is concerned."

Dr. Pavy's remark that latent force is to be rendered active by oxidation calls for a brief consideration of the action of combustion which oxidation connotes. In doing this it is necessary to distinguish between two words which are often confused, viz., "combustion" and "conflagration." Both are due to the same chemical action, but may exhibit themselves in different ways. Dr. Pavy refers to them as "slow" and "rapid" respectively. The popular idea of combustion is that of some action which manifests itself in heat and light; but if we turn to the derivation of these words we find that "combustion" is derived from the Latin words "con," together, and "buro," to burn, which may be effected so slowly as to be imperceptible; while "conflagration" comes from the Latin word "conflagro," which is rendered in English as "to be in a blaze."

In support of this argument I submit the following quotation from a well-known authority, Mr. Vivian B. Lewes, Professor of Chemistry in the Royal Naval College, Greenwich.

Having defined combustion as the combination of "oxygen," which is commonly regarded as the supporter of combustion, with a combustible such as carbon, Mr. Lewes says:—

"Ordinary combustion is the evolution of heat and light during rapid and energetic chemical action; but, in nature there are many cases of chemical changes which are so gradual that the heat evolved, being spread over a long period of time, becomes inappreciable to our senses, and such processes we call 'slow combustion.'

"A tree left to rot upon the ground gradually disappears in the course of years, being oxidised up into carbon dioxide and water vapour, and scarcely any evolution of heat is observed, yet the same amount of heat is generated as if the tree had been cut into logs and burned.

"When a steel watch spring is kindled in oxygen gas by means of German tinder attached to the end of it, the iron burns away with great rapidity, forming an oxide of iron, and giving out great heat and light. The same weight of metal would, in the course of time, if exposed to moist air, be converted into an oxide, which, combined with water, is ordinary rust: yet no evolution of heat is perceptible, because the time over which the action is spread is so great, that at no moment of time is enough heat evolved to be perceived by our senses; yet in each the total quantity of heat evolved is the same. Another example of slow combustion is found in the action of respiration."

We may thus, perhaps, recognise three kinds of combustion, viz.:—

(1.) Slow and imperceptible, as in the action of rotting of wood or rusting of iron.

(2.) Rapid, as in the combustion of fuel in a furnace—conflagration.

(3.) Instantaneous, as in the case of powder in a gun or of gas or petroleum spirit in the cylinder of an internal combustion engine—explosion.

It would appear, however, that we are mainly concerned with combustion in the second and third form, conflagration and explosion, and it behoves us now to consider the methods for giving effect to this chemical action.

Another illustration of the truth of the statements, in the preceding paragraphs, that the action of combustion may occur without visible manifestations, is to be found in the new method of surface combustion without flame, which, invented by Professor W. A. Bone, and developed by that gentleman in conjunction with Mr. C. D. McCourt, has now been put upon the market under their joint names as the "Bonecourt Surface Combustion Boiler."

The principle upon which Professor Bone's new process is founded has been long known to chemists as "catalysis," which is applied to the power, latent in certain substances, of promoting a change in the constitution and condition of other materials without being themselves affected.

The firm, "Bonecourt Surface Combustion, Ltd.," who control the system, have very kindly favoured me with various pamphlets in which it is fully described, and from these I take the following particulars:—

Professor Bone says:—

"The distinguishing and essential feature of the new process is that a homogeneous mixture of gas and air, in the proper proportions for complete combustion (or with air in slight excess thereof) is caused to burn without flame in contact with a granular incandescent solid, whereby a large proportion of the potential energy of the gas is immediately converted into radiant form."

(*To be continued.*)

OIL FUEL

MEYER-SMITH SYSTEM

IS SUITABLE FOR
ALL TYPES OF BOILERS ON LAND OR SEA.
UNDER EITHER NATURAL OR FORCED DRAUGHT.

S/S "GOLDMOUTH,"
NOW FITTED WITH MEYER'S PATENT OIL FUEL
INSTALLATION.

The MEYER-SMITH system of burning Oil Fuel is on the principle of supplying oil to the burners in each furnace under pressure by means of suitable pumps, through filters and heaters. The whole installation has recently been re-designed and the greatest economy and highest efficiency have been obtained by exhaustive experiments and actual trials at sea on ships that have been fitted.

An arrangement is also provided with each installation whereby steam can be raised on either the main or donkey boilers with oil instead of first having to fit up one boiler to burn coal. A large number of vessels have already been fitted up by us with MEYER'S Original Patent System, and a number have been fitted with the latest MEYER-SMITH Installation. We are also fitting up a number at the present time with the latest MEYER-SMITH Installation suitable for both forced and natural draught systems.

The advantages of the MEYER-SMITH system are as follows

1. Considerable reduction in initial cost of Installation.
2. Reduction in weight of installation combined with greater strength of all parts exposed to oil and steam pressure.
3. Oil is supplied at low pressure and high temperature, thereby reducing the strain on all parts exposed to oil.

FOR ESTIMATES AND FULL PARTICULARS APPLY TO
SOLE MAKERS FOR THE UNITED KINGDOM.

SMITH'S DOCK Co. LTD.
BULL RING DOCKS,
NORTH SHIELDS, ENGLAND.

# The American Oil Market.

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### Saturday, March 7th, 1914.

The first set-back in the crude market for a considerable period, says the *Oil Paint and Drug Reporter*, was the decline of ten cents to seventy cents per barrel in the heavy Corsicana, Texas, grade on March 4th. Apparently this move was due to the increasing competition of Mexican oil in the Southern markets. The record of imports of Mexican crude into the country for 1913 shows a total of 16,588,067 barrels of 42 gallon capacity, the great proportion of which was credited to Galveston, Sabine, New Orleans, Port Arthur, Corpus Christi and Tampa.

In the week's review of the Eastern fields there was a material gain in completions and new production, despite the handicap the severe winter weather was supposed to exercise on field work. For the current summary there were 217 completions, 5,400 barrels of new daily production and 71 dry holes, comparing with 180 completions, 3,645 barrels of new daily production and 55 dry holes for the previous week. It was due to the creditable showing of West Virginia and Illinois that the gain in completions was scored, all of the other fields registering declines. West Virginia and Illinois and South-eastern Ohio were the only fields to show a gain in new production. Harrison county, West Virginia, continues the most prolific source of new production in Pennsylvania fields. During the week one of the wells in the Sardis district of the county gave promise of one of the best completions in the field, starting at the rate of 35 barrels an hour. Its decline was rapid, however, and on a 24-hour basis it was not rated for better than 150 barrels. Several of the older completions are maintaining a favourable record around 250 barrels a day. Kanawha county contributed a completion of unusual capacity based on the recent return from the field. The new well was reported good for 250 barrels per day in the Wier Sand development. Considerable interest is attached to the prospect of bringing into action again the old Sisterville field, embracing territory on both the West Virginia and Ohio sides of the river, where a good show of oil was reported to have been developed in the Cow Run Sand. This territory was tested some years ago when the crude market was considerably below its present status, but the results were not regarded as favourable for further tests. Interest was revived at the soaring tendency of crude and another stimulating factor was the introduction of the method of producing gasoline from casing-head gas. The gas from the Sisterville wells is said to be especially desirable for this purpose.

Featuring the recent operations in Kentucky has been the bringing in of the 75-barrel well in the Denny district of Wayne county. Besides being one of the best strikes in the section, the new well may mean the development of an important extension. The next best strike was a 50-barrel well in the Cannel City pool of Wayne county within the defined limits. As a rule, the recent field work has been restricted by unusually severe weather conditions. With the customary stimulus to drilling by spring the Western Kentucky district promises to be the subject of considerable test developments. The two most promising districts are Allen and Ohio counties.

Operations in the Texas-Louisiana field for the week were marked by a slight gain in the general completions and new productions, chiefly as a result of Louisiana completion returns and Panhandle, Texas, new production record. The best strikes were a 600-barrel well in the Sour Lake and Petrolia fields. A 500-barrel well was drilled in the De Soto, Louisiana, district. Great predictions are being sounded of the possibilities of Texas developments during the year, as the geological formation of the different fields of the State are regarded as favourable as those of Oklahoma or California.

## Refined Products.

Weather conditions have operated to marked effect in restricting the movement of the various refined products during the week, and quiet and uneventful conditions have characterised the various markets. Clearances of illuminating oil from the local port assumed a larger total than previously by 7,970,345, against 3,063,140 gallons, since four tank steamers were able to sail during the current week with 4,582,800 gallons, while bulk shipments were held up through the former week by the severity of the weather. Since the first of the year local exports have reached 79,418,060 gallons, comparing with 96,409,360 gallons for the corresponding period of last year. No additional charters for forward shipment have been closed during the week. The charter market has been generally quiet, but rates are reported steady on the basis of recent fixtures, due principally to the fact that tonnage offers were sparing for early or forward loading.

### CLOSING QUOTATIONS.

### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. March 7. | 1914. March 7. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.05 | $2.50 |
| North Lima ... ... ... ... | 1.28 | 1.49 |
| South Lima ... ... ... ... | 1.23 | 1.44 |
| Indiana ... ... ... ... ... | 1.23 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.11 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.83 | 1.03 |
| Humble, Tex. ... ... ... ... | 0.75 | 0.90 |
| Saratoga ... ... ... ... ... | 0.75 | 0.90 |
| Sour Lake, Tex.... ... ... ... | 0.75 | 0.90 |
| Californian, Coalinga light ... ... | 0.65 | 0.60 |
| ,, Kern River heavy ... | — | 0.35 |
| Canadian Oil ... ... ... ... | 1.68 | 1.89 |

### Refined—For Export.

| In cents. | | Week ended March 7. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... ... | | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... ... | | 8·75 | 9·75 |
| Cases, New York ... ... ... | | 11·25 | 12·25 |
| Cases, Philadelphia ... ... ... | | 11·25 | 12·25 |

### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... ... ... ... | 29½ |

### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½-9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 7,760,000 | 48,054,210 | 18,127,204 |
| Refined ... ... | 16,169,110 | 133.133,525 | 153,492,700 |
| Naphtha ... | 2,786,660 | 16,350,190 | 16,138,570 |
| Gas oil ... ... | 2,214,600 | 11,132,685 | 11,927,215 |
| Fuel oil... ... | 259,200 | 15,334,815 | 17,943,760 |

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

March 20th, 1914.

There are no changes in the prices of Refined Petroleum, which remain as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS.

are unaltered, prices being for—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

The official price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

The market price is 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

The retail price in London for the best quality is 1s. 9d. per gallon and for the second quality 1s. 7d. per gallon.

### TURPENTINE

is quoted for spot 32s. 4½d.; April, 32s. 6d.; May/August, 33s. 3d.; September/December, 34s. 3d.

## LIVERPOOL.

March 19th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, February 15th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., „ ... | 5 | 12 | 2 | „ |
| Chester Brand, 75 deg., Abel „ ... | 5 | 2 | 2 | „ |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | „ |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | „ |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | „ |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | „ |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... ... ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| „ Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| „ Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| „ „ per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| „ Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| „ „ per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| „ „ „ 2nd quality ... ... ... | 0 | 3 | 0 |
| „ Candles, per pound ... ... ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, March 17th.

Refined, in cases, is quoted at 11·25; Standard White 8·75; Credit balances, 2·50.

PHILADELPHIA, March 17th.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, March 18th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, March 17th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 43–43¼ copecs per pood spot. Kerosene, 51–51½ copecs. Residuals, 40–40½ copecs.

## ROUMANIA.

March 17th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·35 |
| „ „ „ | Moreni ... | 7·50–8.00 |
| „ „ „ | Tzintea ... | 6·00–6·75 |
| „ „ „ | Policiori... | 6·00 |
| „ „ „ | Bordeni ... | 9·25–9·50 |
| „ „ „ | Bana ... | 10·50 |
| „ „ „ | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| „ sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| „ sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| „ sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

March 17th.

Crude oil is quoted 8·00–8·15 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date March 19th as follows:—

There is no change in the market conditions. We quote to-day:—

| | | | | |
|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/6 to 13/7½ per box. |
| 1c | 20 ×10 | 225 „ | 156 „ ... | 19/1½ „ 19/3 „ „ |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MARCH 16TH, 1914 (excluding any Imports which may not be disclosed)—

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| Mar. | LONDON— | | | |
| 10 | Mordaunt Bros. | Lub. | 5,000 | New York |
| 10 | Anglo-American Oil Co. | " | 8,000 | " |
| 10 | Mercantile Lighterage Co. | " | 11,000 | " |
| 10 | Vacuum Oil Co. | " | 9,530 | " |
| 10 | C. Shaw, Lovell & Sons | " | 1,130 | " |
| 10 | J. Spurling | " | 400 | " |
| 10 | Scott's Wharf | " | 2,500 | " |
| 10 | Langley, Smith & Co. | " | 4,580 | " |
| 10 | Port Authority | " | 400 | Hamburg |
| 10 | " | " | 480 | Marseilles |
| 10 | L. Freeland | Lub. Gr. | 40 | Antwerp |
| 10 | A. Duckham & Co. | Lub. | 800 | " |
| 11 | Port Authority | " | 3,280 | Hamburg |
| 11 | J. Thompson | " | 1,720 | New York |
| 11 | Anglo-American Oil Co. | " | 46,120 | " |
| 11 | M. Golodetz | " | 3,500 | Riga |
| 12 | Anglo-American Oil Co. | Naphtha | 1,925,000 | Novorossisk |
| 12 | W. Hodgson & Co. | Lub. | 300 | Riga |
| 12 | Mordaunt Bros. | Lub. Gr. | 800 | New York |
| 12 | Vacuum Oil Co. | Lub. | 3,310 | " |
| 12 | Mercantile Lighterage Co. | " | 11,200 | " |
| 13 | Trinidad Lake Asphalt Co. | Lub. Resid. | 7,150 | N. News |
| 13 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 2,950 | Hamburg |
| 13 | London Oil Storage Co. | Lub. | 8,000 | Dunkirk |
| 14 | Hanseatic Maritime Agency | " | 120 | Bremen |
| 14 | " " | " | 80 | " |
| 14 | Port Authority | " | 2,690 | Hamburg |
| 14 | " | " | 630 | Antwerp |
| 16 | Leach & Co. | Lub. Oil and Gr. | 160 | Ghent |
| 16 | A. H. Gilbert & Co. | Lub. | 90 | Hamburg |
| 16 | J. Thompson | " | *990 | Riga |
| 16 | Scott's Wharf | " | 6,250 | New York |
| | LIVERPOOL— | | | |
| 10 | F. Schofield & Co. | " | 6,400 | Baltimore |
| 10 | Meade-King, Robinson & Co. | " | 2,720 | " |
| 10 | " " | " | 60,810 | Philadel. |
| 10 | E. Harrison & Co. | " | 21,080 | " |
| 10 | Crew, Levick & Co. | " | 120,500 | " |
| 10 | " | M. Colza | 12,590 | " |
| 10 | " | Lub. Resid | 5,360 | " |
| 10 | " | Lub. Gr. | 140 | " |
| 10 | Stockdale & Doel | Lub. | 8,100 | " |
| 10 | D. Owen & Son | " | 2,930 | " |
| 10 | Bramwell, Fern & Co. | " | 9,790 | " |
| 10 | Worthington & Boler | " | 4,880 | " |
| 10 | " " | " | 8,000 | New York |
| 10 | " " | " | 1,600 | " |
| 10 | White Star Line | " | 1,000 | " |
| 10 | Lancs & Yorks Railway | " | 600 | " |
| 10 | Anglo-American Oil Co. | " | 13,400 | " |
| 10 | Liverpool Warehousing Co. | " | 1,000 | " |
| 10 | Great Western Railway | " | 2,600 | Baltimore |
| 11 | R. Crooks & Co. | Lub. Gr. | 130 | New York |
| 11 | American Line | Lub. Oil and Gr. | 2,400 | Philadel. |
| 11 | Bennett's Haulage, etc., Co. | Lub. | 4,600 | " |
| 11 | Fellows, Morton & Clayton | " | 2,860 | " |
| 11 | American Line | " | 1,000 | " |
| 11 | W. B. Dick & Co. | " | 23,920 | " |
| 11 | Bowring Petroleum Co. | " | 3,920 | " |
| 11 | F. Chiesman & Co. | " | 1,000 | New York |
| 11 | Huxley & Co. | " | 1,050 | " |
| 11 | Pickford's | Lub. Paste | 240 | Hamburg |
| 12 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 13 | Anglo-American Oil Co. | Lub. | 4,000 | New York |
| 13 | Meade-King, Robinson & Co. | " | 2,720 | Baltimore |
| 14 | Bramwell, Fern & Co. | Lub. Gr. | 800 | New York |
| 16 | A. Hopps & Sons | Lub. Resid. | 5,200 | St. John's |
| 16 | D. Currie & Co. | Lub. Gr. | 200 | Hamburg |
| 16 | Pickford's | Lub. | 370 | " |
| 16 | F. Guest | " | 2,000 | " |
| 16 | J. Light & Son | " | 800 | New York |
| | BARROW— | | | |
| 12 | Asiatic Petroleum Co. | Benzine | 1,084,400 | P. Samboe |
| 16 | Anglo-American Oil Co. | " | 1,878,570 | Sabine |
| | BOSTON— | | | |
| 16/2 | W. F. Beaumont | Lub. | 730 | Hamburg |
| | BRISTOL— | | | |
| 10 | Ford & Canning | " | 8,760 | New York |
| 10 | C. Hill & Sons | " | 10,040 | " |
| 10 | H. Pritchard & Co. | " | 5,040 | " |
| Mar. | BRISTOL— | | | |
| 10 | E. Stock & Sons | Lub. Gr. | 240 | Hamburg |
| 12 | Colthurst & Harding | " | 240 | " |
| 12 | First Anglo-Russian Oil Co. | Lub. | 270 | " |
| 12 | Pickford's | Lub. Oil and Gr. | 180 | " |
| 12 | O. Pragnell & Co. | Lub. | 250 | Antwerp |
| 13 | W. G. Clarke | " | 640 | " |
| 13 | Heaton & Co. | " | 420 | " |
| 13 | Ferris & Co. | Other Sorts | 180 | " |
| 13 | J. & R. Bush | Lub. | 3,680 | New York |
| 14 | Asiatic Petroleum Co. | Benzine | 545,100 | Singapore |
| | GLOUCESTER— | | | |
| 16 | Bristol Steam Navig. Co. | Lub. | 2,640 | Hamburg |
| | HARWICH— | | | |
| 10 | Great Eastern Railway | " | 80 | " |
| 11 | " " | " | 430 | Antwerp |
| 12 | " " | " | 240 | " |
| 13 | " " | " | 50 | " |
| 13 | " " | " | 40 | " |
| 14 | " " | " | 320 | " |
| | HULL— | | | |
| 12 | Wilson's & N. E. Railway | " | 840 | Hamburg |
| 12 | " " | " | 480 | Antwerp |
| 12 | " " | " | 200 | Dunkirk |
| 12 | T. Wilson, Sons & Co. | " | 1,800 | Fiume |
| 16 | T. M. Roberts & Co. | " | 530 | Antwerp |
| 16 | Wilson's & N. E. Railway | " | 900 | " |
| 16 | " " | " | 80 | Hamburg |
| 16 | British Petroleum Co. | Lamp | 941,000 | Kustendje |
| | MANCHESTER— | | | |
| 7/2 | Anglo-American Oil Co. | " | 5,180 | New York |
| 10 | Liverpool Storage Co. | M. Colza | 7,720 | Philadel. |
| 11 | T. Wilson, Sons & Co. | Lub. | 900 | Riga |
| 11 | J. T. Fletcher & Co. | " | 400 | Antwerp |
| 12 | " | " | 240 | Ghent |
| 14 | D. Currie & Co. | " | 3,280 | Hamburg |
| 16 | Meade-King, Robinson & Co. | " | 3,000 | N. Orleans |
| | MIDDLESBROUGH— | | | |
| 10 | E. Harris & Co. | " | 400 | Antwerp |
| | NEWCASTLE— | | | |
| 13 | Tyne-Tees Steamship Co. | " | 1,120 | " |
| 13 | " " | " | 200 | Hamburg |
| | PLYMOUTH— | | | |
| 11 | Bristol Steam Navig. Co. | M. Colza | 410 | Antwerp |
| | SOUTHAMPTON— | | | |
| 14 | P. E. Curry | Lub. | 160 | New York |
| | SWANSEA— | | | |
| 14 | Burgess & Co. | Lub. Gr. | 120 | Hamburg |
| 14 | M. Jones Bros. | Lub. | 160 | Bergen |
| | DUNDEE— | | | |
| 12 | D. Alexander & Sons | " | 120 | Hamburg |
| | GLASGOW— | | | |
| 10 | Anchor Line | Lub. Oil and Gr. | 26,260 | New York |
| 11 | " | Lub. | 240 | " |
| 11 | Clyde Shipping Co. | " | 960 | Antwerp |
| 11 | Donaldson Bros. | M. Colza | 5,200 | Baltimore |
| 13 | " | Lub. | 7,800 | " |
| 13 | Maclay & MacIntyre Co. | " | 33,700 | New York |
| 16 | Escombe, McGrath & Co | Fuel | 83,400 | Singapore |
| | GRANGEMOUTH— | | | |
| 10 | Jas. Currie & Co. | Lub. | 120 | Hamburg |
| 13 | Jas. Rankine & Son | " | 550 | Antwerp |
| | LEITH— | | | |
| 10 | G. Gibson & Co. | " | 320 | " |
| 12 | G. V. Turnbull & Co. | " | 6,000 | Philadel. |
| 12 | Jas. Currie & Co. | " | 480 | Hamburg |
| 13 | G. Gibson & Co. | " | 1,600 | Dunkirk |
| 16 | " | " | 120 | Antwerp |
| 16 | Jas. Currie & Co. | " | 1,800 | Hamburg |
| | BELFAST— | | | |
| 23/2 | Anglo-American Oil Co. | Gas | 8,760 | Philadel. |
| 13 | J. C. Pinkerton & Co. | Lub. | 110 | Hamburg |
| | | | 7,100,160 | |
| | Deduct— | | | |
| | CARDIFF— | | | |
| 10/2 | Collins & Partners | Lub. | 240 | Antwerp |
| | | | 7,099,920 | |

From Lloyd's

March 19th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Gaviota | San Francisco | Arr. ab't Mar. 16 |
| AMERICAN | Antwerp | New York | Arr. Mar. 12 |
| APPALACHEE* | Philadelphia. | Invergordon. | Pd. Delaware B'water, Mar. 4 |
| APSCHERON | Naples | Kustendje | L. Mar. 14 |
| ARAL | La Rochelle | Tyne | Arr. Mar. 5. In port Mar. 16 |
| ARAS | New York | La Pallice | L. Mar. 5 |
| ARCA | Singapore | Tientsin | L. Hong Kong Mar. 14 |
| ARTHUR VON GWINNER | Kustendje | Hamburg | Pd. Gib. Mar. 16 |
| ASHTABULA* | San Francisco | Pisagua | L. Jan. 27 |
| ASTRAKHAN | Tyne | New Orleans. | Pd. Dunnet Hd. Feb. 26 |
| AUREOLE | Tyne | Philadelphia. | Pd. Dunnet Hd. Mar. 14 |
| AZOV | San Francisco | Callao | Arr. Feb. 16 |
| BAKU STANDARD | Kustendje | Hamburg | Arr. ab't Mar. 16 |
| BALAKANI □ | Manchester | New Orleans | Arr. Mar. 14 |
| BARNESON | Tyne | San Pedro | Off Fernando Noronha Mar. 2 |
| BATOUM | Jacksonville. | Port Arthur | L. Mar. 10 |
| BAYONNE | Kustendje | Genoa | Arr. Mar. 12 |
| BEACON LIGHT | Tyne | Abadan | Pd. Aden Mar. 8 |
| BEECHWOOD | Cienfuegos | Liverpool | L. Mar. 11 |
| BLOOMFIELD | P. Mexico | Tuxpan | L. Mar. 6 |
| BORJOM | Alexandria | Batoum | Cl. Constantinople Mar. 7 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Pd. Anjer Feb. 19 |
| BRILLIANT | Hamburg | Port Arthur. | Pd. Lizard Mar. 3 |
| BRITISH SUN | Ango Ango | Trinidad | Sailed St. Vincent (C.V.) Mar. 13 |
| BROADMAYNE | Calais | Tyne | Arr. Mar. 2. In port Mar. 16 |
| BUFFALO | San Francisco | Taku Bar | Arr. ab't Mar. 14 |
| BULLMOUTH △ | Singapore | Hong Kong | L. Mar. 7 |
| BULYSSES △ | Rangoon | — | Pd. Sagres Mar. 15 |
| BURGERMEISTER PETERSEN | Dantzig | Sabine | Pd. Cape Wrath Feb 27 |
| BUYO MARU | — | Karachi | Arr. a'bt Mar. 4 |
| C. A. CANFIELD* | Colon | Tampico | Arr. Feb. 12 |
| CALCUTTA (Br. Bq.) | Yokohama | San Francisco | Arr. Feb. 23 |
| CAMILLO | London | Port Arthur | Off the Wight Mar. 8 |
| CAPTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| CARDIUM △ | Shanghai | Tsingtau | L. Mar. 13 |
| CARPATHIAN □ | New Orleans | London | L. Newport News Mar. 13 |
| CASTOR | Ambon | Ternate | L. Mar. 9 |
| CAUCASIAN □ | Hull | Galveston | Arr. Mar. 18 |
| CHARLES E. HARWOOD | Sabine | Tampico | L. Feb. 21 |
| CHARLOIS. | Rotterdam | New York | Pd. Dover Mar. 15 |
| CHATHAM | New Orleans | Havana | L. Pt. Eads Mar. 4 |
| CHESTER | Antwerp | New York | Pd. Lizard Mar. 8 |
| CHEYENNE | Sabine | Barrow | Arr. Mar. 15 |
| CIRCASSIAN PRINCE | — | — | T. W.C.S. America |
| CITY OF EVERETT | New York | Tampico | Arr. Jacksonville Feb. 28 |
| CLAM △ | Singapore | Soesoe | L. Mar. 12 |
| CLEARFIELD | Galveston | Port Arthur. | L. Mar. 14 |
| COMANCHEE | Philadelphia. | Liverpool | Arr. Feb. 26. In pt. Mar. 6 for Charleston. |
| CONCH △ | Rotterdam | Tyne | Left. Mar. 16 |
| CONRAD MOHR | Christiania | New York | L. Tyne Mar. 12 |
| CORDELIA | Antofagasta | San Francisco | Arr. Mar. 7 |
| COWRIE △ | San Francisco | Tientsin | L. Mar. 12 |
| CURRIER | Matanzas | Philadelphia. | Arr. Mar. 9 |
| CYMBELINE | Gothenburg | Tyne | Arr. Mar. 17 |
| CYRENA | Singapore | Soesoe | L. Mar. 13 |
| CZAR NICOLAI II. | Batoum | Rouen | Pd. Havre Mar. 17 |
| DAGHESTAN | Philadelphia. | Thames Haven | Arr. Thamesh'v'n Mar. 17 |
| DANUBIAN □ | London | Port Arthur | Pd. Dungeness Mar. 7 |
| DAYLIGHT (Br. Bq.) | Hong Kong | New York | Arr. Feb. 28. In port Mar. 6 for Japan |
| DELAWARE* | Norfolk, Va. | Port Antonio | L. Mar. 7 |
| DELPHIN | Stettin | Baton Rouge. | Pd. Lizard Mar. 17 |
| DERBENT | Batoum | Liverpool | Pd. Gib. Mar. 16 |
| DESALBA | San Pedro | Taltal | L. Mar. 14 |
| DEUTSCHLAND | Copenhagen | Philadelphia. | Pd. Cape Wrath Mar. 14 |
| DIAMANT | Rotterdam | New York | Pd. Prawle Pt. Mar. 17 |
| DONAX | Abadan | London | Pd. Dover Mar. 19 |
| EBURNA △ | Gemsah | Singapore | Pd. Perim Mar. 7 |
| EDWARD L. DOHENEY | Sabine | Tampico | L. Mar. 6 |
| EL LOBO | Lobitos | Payta | Arr. ab't Mar. 18 |
| EL SEGUNDO | San Francisco | Honolulu | L. Feb. 17 |
| EL TORO | New Orleans. | Campana | Arr. B'nos Ayres ab't Mar. 9 |
| ELAX △ | Novorossisk | Rotterdam | L. Zea Mar. 13 |
| ELISE MARIE | Hamburg | Sabine | Pd. Dover Mar. 19 |
| ELSINORE | St. Helens | San Francisco | Arr. Mar. 1 |
| EMANUEL NOBEL | Batoum | Antwerp | Arr. Feb. 22. In port Mar. 17 |
| ENERGIE | Tampa | Tampico | L. Mar. 4 |
| ERIVAN | Trieste | Kustendje | L. Mar. 12 |
| ESCALONA | Rio Janeiro | Trinidad | L. Mar. 3 |
| ESTURIA | Calcutta | Rangoon | Arr. Mar. 14 |
| EUPION | Sunderland | New York | Arr. Feb. 27. In port Mar. 6 |
| EUPLECTELA △ | Adelaide | Balek Pappan | L. Mar. 14 |
| EXCELSIOR | Philadelphia | Copenhagen | L. Mar. 7. Pd. Delaware B'water Mar. 7 |
| F. A. TAMPLIN | Manchester | Mexico | Pd. Eastham Mar. 14 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans | New York | Arr. Jan. 28. In port Mar. 6 |
| GENESSE* | New York | Manchester | Arr. Mar. 17 |
| GEORGIAN PRINCE | Tyne | Port Arthur. | Pd. Dover Feb. 27 |
| GOLDMOUTH △ | Batoum | Colombo | Arr. Mar. 12 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Monte Video ab't Mar. 13 |
| HAGEN | New York | Rotterdam | Arr. Mar. 7. In port Mar. 16 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | Pisagua | San Francisco | Arr. Mar. 6 |
| HARRY LUCKENBACH | Port Tampa | Baltimore | L. Feb. 22 |
| HAVRE | Singapore | Freemantle | Arr. Mar. 14 |
| HELIOS | New York | Rotterdam | Arr. Mar. 14. In port Mar. 17 |
| HERA | Philadelphia. | Rotterdam | L. Mar. 15 |
| HERBERT G. WYLIE | Port Aransas | Tampico | Crssd. Galveston Bar Mar. 6 |
| HERMIONE | Southampton | Port Arthur. | Arr. Mar. 14 |
| HESPERUS | San Francisco | Taltal | Arr. Mar. 10 |
| HORLEY | Tuxpan | New York | Arr. Mar. 13 |
| HOTHAM NEWTON | Middlesbro' | Port Arthur. | Pd. Dover Mar. 17 |
| HYRCANIA | Manchester | Tyne | Arr. Mar. 15 |
| ILLINOIS | Antwerp | Port Arthur | Arr. Feb. 23 |
| IMPEROYAL | — | — | T. St. Lawrence |
| IMPOCO | Genoa | Kustendje | Arr. Malta Mar. 11 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | 130 miles S.W. of Brow Head Mar. 16 |
| J. B. AUG. KESSLER △ | Batoum | Karachi | Arr. Mar. 15 |
| J. OSWALD BOYD | Port Aransas | Tampico | Arr. Feb. 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Batoum | Arr. Brest Mar. 2 |
| JUNO △ | Palembang | Singapore | Arr. Feb. 27 |
| JUPITER | Tyne | New York | L. Mar. 17 |
| KANAKUK | San Francisco | Hong Kong | L. Feb. 17 |
| KASBEK | Genoa | Batoum | L. Mar. 14 |
| KIOWA | Emden | Port Arthur | Pd. Lizard Mar. 10 |
| KIYO MARU | Shimonoseki. | Valparaiso | Arr. Honolulu Mar. 3 |
| KOMETA | Kustendje | Spezia | Pd. Dard. Mar. 13 |
| KREMLIN | Hamburg | Tyne | Arr. Mar 13. In port Mar. 16 |
| KURA | Tuborg | Blyth | Arr. Feb. 13. In port Mar. 17 |
| LA CAMPINE | Antwerp | Kustendje | Pd. Sagres Mar. 12 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA FLANDRE | Norfolk. Va. | Antwerp | L. Mar. 6 |
| LA HABRE | Tyne | San Francisco | Pd. Dungeness Mar. 11 |
| LA HESBAYE | Antwerp | Philadelphia. | L. Fayal Mar. 13 |
| LACKAWANNA* | New York | Manchester | L. Mar. 9 |
| LAMPO | Genoa | Philadelphia | Pd. Sagres Mar. 4 |
| LE COQ □ | Rouen | New York | Arr. Mar. 14 |
| LEDA | Hamburg | New York | Pd. Lizard Mar.18 |
| LOKI | New York | Hamburg | Pd. Dover Mar. 18 |
| LUCELLUM | Portsmouth | Kustendje | Off Wight Mar. 13 |
| LUCERNA | Rotterdam | Tyne | Arr. Mar. 16 |
| LUCIGEN | Cardiff | Bussorah | Arr. Mar. 15 |
| LUCILINE □ | Cette | Novorossisk | Arr. Mar. 16 |
| LUMEN | Tyne | New York | Pd. Dunnet Hd. Mar. 9 |
| LUTETIAN □ | Bordeaux | New York | L. Pauillac Mar. 6 |
| LUX □ | Cadiz | New York | L. Mar. 6 |
| LUZ BLANCA | San Francisco | Taltal | Arr. Payta ab't Mar. 18 |
| MAKKAVEI | Kustendje | Alexandria | Arr. Mar. 9 |
| MANNHEIM | Philadelphia. | Copenhagen | Arr. Mar. 17 |
| MARGARETHA | Antwerp | Kustendje | L. Mar. 8 |
| MASCONOMO | Tsingtau | San Francisco | Arr. ab't Mar. 5 |
| MASSASOIT | San Francisco | Yokohama | Arr. ab't Mar. 5 |
| MEPPEN | Schulau | — | Pd. Gib. Mar. 14 |
| METEOR | Kustendje | Hull | Arr. Mar. 13 |
| MEXICAN PRINCE | Shanghai | Tientsin | L. Mar. 12 |
| MIJDRECHT | Kustendje | London | Pd. Dard. Mar.12 |
| MINA BREA | — | Callao | Arr. ab't Mar. 11 |
| MIRA | Alexandria | Kustendje | Arr. Mar. 12 |
| MITRA △ | Suez | Singapore | Pd. Perim Mar. 1 |
| MOHAWK* | Tuxpan | New York | Arr. Mar. 12 |
| MOHICAN | Rotterdam | New York | Arr. Mar. 15 |
| MUREX △ | Soesoe | Singapore | L. Mar. 13 |
| NARRAGANSETT | London | New York | Arr. Mar. 9 |
| NATICA △ | Balek Pappan | Europe | L. Sabang Mar. 7 |
| NELSON | Philadelphia. | Puerto Padre | Pd. Delaware B'kwater Mar. 6 |
| NEW YORK* | Rotterdam | Baton Rouge | Arr. Mar. 11 |
| NIAGARA | Shanghai | San Francisco | L. Mar. 6 |
| NORMAN BRIDGE | Galveston | Tampico | 119 miles S.W. of Galveston Mar. 3 |
| OAKWOOD | Cienfuegos | Thames Haven | Arr. Mar. 16 |
| OBERON | Tocopilla | San Francisco | Arr. ab't Mar. 13 |
| OCEAN | New York | Rotterdam | L. Mar. 12 |
| OILFIELD | London | Tyne | Arr. Feb. 20. In port Mar. 2 |
| ORIFLAMME □ | Havre | New York | Pd. Lizard Mar.16 |
| OSAGE | Galveston | Tuxpan | L. Sabine Mar. 7 |
| OTTAWA* | Liverpool | New Orleans. | L. St. Michaels Mar. 2 |
| OURAL | Spezzia | Kustendje | Pd. Dard. Mar. 17 |
| PALEMBANG △ | Rangoon | Calcutta | Arr. Mar. 13 |
| PATELLA △ | Tyne | Novorossisk | Arr. Mar. 12 |
| PAUL PAIX | Kustendje | Dunkirk | Arr. Mar. 15 |
| PAULA | Philadelphia. | Lisbon | Arr. Lisbon Mar. 16 |
| PAWNEE | Lisbon | Port Arthur | L. Mar. 11 |
| PECTAN | Taltal | San Francisco | Arr. Feb. 8 |
| PENNOIL | Rotterdam | Philadelphia. | Pd. Dungeness Mar. 18 |
| PETROLEINE | Bordeaux | New York | Arr. Mar. 15 |
| PETROLEUM | Port Arthur | Portsmouth | Arr. Feb. 2 |
| PHOEBUS | Port Costa | Pisagua | L. Feb. 25 |
| PINNA □ | Tyne | Port Arthur. | Pd. Dover Mar. 19 |
| PONUS | San Francisco | Orient | L. Mar. 6 |
| POTOMAC* | Sunderland | New Orleans. | 20 miles E. Niton Mar. 7 |
| POWHATTAN | San Francisco | Bombay | Arr. ab't Mar. 13 |
| PROMETHEUS | Antofagasta | San Francisco | Arr. Mar. 1 |
| PRUDENTIA | New York | Norfolk, Va. | L. Feb. 23 |
| PURELIGHT | Hamburg | Port Arthur. | Arr. Mar. 18 |
| QUEVILLY (Fr. Bq.) | New York | Rouen | Sp. Mar. 12. 40 N. 52 W. |
| RADIOLEINE | Port Arthur. | Bremen | Arr. Rouen Mar. 9 |
| RANELLA △ | Portishead | Cardiff | L. Mar. 18 |
| RENDOVA (Br. Bq.) | Seville | New York | L. Feb. 5 |
| RICHMOND | Seattle | San Francisco | L. Feb. 18 |
| RION | Blyth | Port Arthur | Pd. Sand Key Mar. 18 |
| ROCK LIGHT □ | Port Arthur | Amsterdam | Pd. Dover Mar. 19 |
| ROMANY △ | Singapore | Gibraltar | L. Mar. 10 |
| ROSALIND | Port Arthur | Portsmouth | Arr. Mar. 15 |
| ROTTERDAM | Queenstown | Rotterdam | Arr. Feb. 28. In port Mar. 16 |
| ROUMANIAN □ | Sabine | Avonmouth | Arr. Mar. 17 |
| ROUMANIAN PRINCE | Tampico | Baltimore | Arr. Mar. 15 |
| RUSSIAN PRINCE | Aransas | Tampico | L. Feb. 26 |
| SABINE RICKMERS | Hong Kong | Haiphong | Arr. Mar. 14 |
| SALAHADJI △ | Singapore | Calcutta | Arr. Mar. 13 |
| SAMOSET | Shanghai | San Francisco | Arr. ab't Mar. 4 |
| SAN ANTONIO | Queenboro' | Rotterdam | Arr. Feb. 8. In port Mar. 16 |
| SAN BERNARDO | Thames Haven | Rotterdam | Arr. Mar. 10. In port Mar. 16 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Manchester | Puerto Mexico | 75 m. W. Brow Head Mar. 1 |
| SAN EDUARDO | Puerto Mexico | Portsmouth | 110 m. E. of Cape Hatteras Mar. 7 |
| SAN FRATERNO | Borneo | Sheerness | L. Mar. 8 |
| SAN GREGORIO | Tyne | Mexico | 40 m. E. Land's End Mar. 9 |
| SAN HILARIO | Borneo | Sheerness | L. Port Said Mar. 17 |
| SAN JERONIMO | Sunderland | Borneo | Pd. Perim Mar. 5 |
| SAN JOAQUIN | San Francisco | Iquique | L. Port San Luis Mar. 10 |
| SAN LORENZO | Tuxpan | New York | L. Mar. 15 |
| SAN RICARDO | Portland | Borneo | Pd. Perim Mar. 7 |
| SAN SILVESTRE | London | New York | 300 m. W. Scilly Mar. 8 |
| SAN TIRSO | New Orleans | Algiers | Pd. Cape Henry Mar. 6 |
| SAN URBANO | London | Tuxpan | 46 m. S. Land's End Feb. 25 |
| SAN VALERIO | Puerto Mexico | Sheerness | L. Mar. 7 |
| SANTA MARIA | Port San Luis | Honolulu | L. Feb. 15 |
| SANTA RITA | Port San Luis | Honolulu | Arr. Feb. 25 |
| SATANTA | Yokohama | Itosaki | L Feb. 24 |
| SAXOLEINE | New York | Rouen | Pd. Havre Mar. 17 |
| SEBASTIAN | London | Novorossisk | L. Malta Mar. 17 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port Mar. 16 |
| SEQUOYA | Amoy | San Francisco | 1750 m. fm. San Francisco Fb. 25 |
| SERVIAN □ | Cardiff | Kustendje | Pd. Gib Mar. 16 |
| SHABONEE | San Francisco | Itosaki | L. Feb. 23 |
| SILVIA | Port Arthur. | Sheerness | Pd. Prawle Pt. Mar. 18 |
| SIOUX | San Francisco | Iquique | L. Feb. 27 |
| SIRIUS (Ger.) | Kustendje | Stockholm | L. Copenhagen Mar. 14 |
| SOCONY | Bayonne, N.J. | Tampico | Arr. Feb. 24 |
| SOYO MARU | — | — | Arr. Suez Mar. 9 |
| SPLENDOR | Savona | Tunis | L. Mar. 12 |
| STAG | Rotterdam | Antilla | Arr. Mar. 14 |
| STANDARD | Liverpool | Rotterdam | Arr. Feb. 24. In port Mar. 9 |
| STROMBUS △ | Cardiff | Port Arthur | L. Mar. 13 |
| SULTAN VAN LANGKAT △ | Calcutta | Aroe Bay | L. Mar. 8 |
| SUNLIGHT (Br. Bq.) | Macoris | Liverpool | Arr. Jan. 4. In port Jan. 20 |
| SURAM | Copenhagen | Blyth | Arr. Jan. 16. In port Mar. 17 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port Mar. 17 |
| SVIET | Smyrna | Batoum | Cl. Constantinople Mar. 4 |
| TASCALUSAH | New York | Calcutta | Arr. ab t Mar. 4 |
| TATARRAX | New York | Calcutta | Arr. ab't Mar. 13 |
| TEAKWOOD | Portland | Barry | Arr. Mar. 10. In port Mar. 18 |
| TECUMSOH | — | New York | Arr. Mar. 15 |
| TELENA △ | New Orleans | Alexandria | Arr. Mar. 14 |
| TEREK | Tyne | Port Arthur | L. Mar. 11 |
| TIFLIS | Batoum | — | Pd. Dard. Mar.16 |
| TONAWANDA* | Sunderland | Rotterdam | Arr. Mar. 13. In port Mar. 16 |
| TRINCULO | Iquique | Vanc'ver, B.C. | Arr. ab't Mar. 8 |
| TRINIDADIAN | Port Arthur | Tampico | 90 m. S. Sabine Mar. 9 |
| TRITON | Baton Rouge | Rotterdam | L. Mar. 3 |
| TROCAS △ | Balek Pappan | Shanghai | Arr. Mar. 12 |
| TURBO △ | Tyne | Colombo | Arr. ab't Mar. 18 |
| UNCAS | San Francisco | Moji | L. Mar. 4 |
| VEDRA | Port Arthur | Antwerp | L. Norfolk, Va., Mar. 14 |
| VILLE DE DIEPPE (Norwegian Barque) | Philadelphia. | La Pallice | Pd. Delaware Bkwater Feb. 18 |
| VITRUVIA | Novorossisk | Thames Haven | Arr. Mar. 18 |
| VOLCANUS △ | Miri | Palembang | L. Mar. 11 |
| VOLUTE △ | Rangoon | — | Pd. Gib. Mar. 17 |
| WABASHA | Calcutta | San Francisco | Arr. ab't Mar. 18 |
| WANETA | Sabine | Tampico | 62 m. N. Tampico Mar. 6 |
| WAPELLO | New York | Liverpool | 140 m. W. Brow Head Mar. 18 |
| WASHINGTON | New Orleans. | Tampico | L. Port Eads Mar. 8 |
| WEEHAWKEN | London | Port Arthur. | Arr. Dartmouth Mar. 18 |
| WIELDRECHT | Sunderland | Abadan | Pd. Perim Mar. 14 |
| WILLIAM F. HERRIN | — | — | T. Pacific Coast of N. America |
| WILLKOMMEN | Stockholm | Philadelphia. | Pd. Dunnet Hd. Mar. 16 |
| WINAMAC | Mi-ike | San Francisco | Arr. Feb. 26 |
| WOTAN | New York | Hamburg | L. Mar. 14 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**The World's Oil Exhibition.**

AS we anticipated, the World's Oil Industries Exhibition, which is now in the middle of its run at Earl's Court, London, S.W., is deservedly attracting those whose lives are devoted to the petroleum industry. Earl's Court, in fact, during the present week has been the rendezvous of il men from practically every producing country under the sun, and, what is more, the visitors have een greatly interested in what they have seen. Apart rom the numerous exhibits—and no one can say the Exhibition is not a show well worthy of the great nterests it represents—the series of oil lectures given ach evening during the week has undoubtedly een a distinct source of education to all who have had he privilege to listen to them, while the cinematograph lms of oilfield pictures have been a great feature. Without being accused of egotism, we might mention hat at the REVIEW stand during the week we have eceived calls from subscribers from the Far Eastern nd the Egyptian fields, oil-shale land proprietors from frica, oil men from America, and several gentlemen nterested in searching for oil in the Arctic Circle, and e mention this fact to show that the gentlemen who re directly interested in the present and prospective evelopment of the world's petroleum industry are fully live to the opportunities which the present Exhibition ffords. We can only hope that the suggestion made in ll seriousness by Mr. D. A. Sutherland at the opening f the Exhibition will materialise — that similar erious trade and technical Oil Exhibitions will herefter be presented annually. As a matter of fact, we ave reason to believe that Mr. G. D. Smith, the promoter and general organiser of the present Exhibition, hinks well of the hint thrown out, and it is very robable that before the Exhibition doors close next aturday a definite statement will be forthcoming.

**Messrs. S. Pearson & Son Take Another Important Step.**

THE announcement which we made in these columns a fortnight ago to the effect that Messrs. S. Pearson & Son, the eminent contractors, had exercised their option upon the properties of the Oran Oil Company in Algeria, is to-day strengthened in its importance, inasmuch as at a meeting of the shareholders of the Constantine Oilfields, Ltd., during the present week, the agreement which the directors had entered into with the same firm for the development of their oil properties—also in Algeria—was unanimously confirmed. The advent of such an influential group of interests in Algeria—a step naturally only undertaken after the most careful study of the merits of the properties acquired—cannot be over-estimated in its importance, for it is common knowledge that where Messrs. Pearson deem it wise to centralise their operations, there will the development of the petroleum industry receive a remarkable impetus. The geographical position of Algeria is such that the British public at large cannot but congratulate themselves upon the fact that such enormous acreage of apparent oil-bearing land is to be developed by the best British interests. The nation at large, like the shareholders in the Oran and Constantine companies, can take to itself congratulations.

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**Galicia's Declining Production.**

THE figures dealing with the output of crude oil in the Galician fields during January and February of this year are not at all encouraging, for the low ebb of 71,795 tons produced in the first month of the year was succeeded by a still further reduced output of 69,627 tons for February. It is evident—and has been so for a long time past—that until the newer fields of Galicia are developed there are practically no hopes for a return of crude oil production to its former levels. It is gratifying, however, to state that there are unmistakable signs of a period of activity dawning for the virgin fields in other parts of Galicia, for already not only have some of these territories been acquired by serious interests, but arrangements are already being made for their rapid development. Galicia, naturally, wants more oil, and has got to get it from somewhere, and to the practical oil man—knowing as he does the wealth of petroliferous regions in the Austrian Empire—it is only reasonable that this should be sought at home. Roumania can find more useful account for her crude oil than dumping it over the frontier for refining purposes, for her producers have long ago learned the unprofitable nature of letting the unrefined oil pass to other countries for refining purposes. We, therefore, welcome the spirit of enterprise which appears to have spread itself over Galicia, and can only hope that the various operations will be carried out in that careful manner which has long been associated with oil drilling in Galicia. Given this, then Galicia again will pass from all her troubles, for the so far unexploited regions contain a wealth of oil unequalled in many other parts of the world.

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**Gas by B.T.U.'s: Not Cubic Feet.**

A very unique proposition comes from Kansas, which, though it may not be commercially feasible, has the advantage of having reason on its side. Professor Cady, of the Public Utilities Commission of Kansas, has suggested a plan under which gas should be sold in accordance with its heating value instead of so much per thousand cubic feet. The learned professor urges that natural gas in the United States should be sold by the number of British thermal units it represents, inasmuch as many natural gas samples have recently been tested, and their heating qualities have been found to vary from 706 B.T.U.'s to 1,063 B.T.U.'s to the cubic foot. Obviously the man who gets the former gas ought only to pay 70 per cent. of the price charged to the consumer who gets a gas of over 1,000 British thermal units. In actual practice, however, we see several drawbacks to the commercial adoption of the suggestion. What we would rather see is a standard adopted so that of necessity the gas should have a guaranteed heat standard.

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## CAPTAIN OSBON, OF THE "SAN ISODORO."

Captain R. S. Osbon, whose photograph we have pleasure in herewith publishing, has been appointed master of the "San Isodoro"—one of the gigantic oil-tankers of the Eagle Oil Transport Company's fleet which has just had her trial trips off the Tyne.

Captain Osbon has followed the sea for over twenty-one years, and has had experience in various trades in all parts of the world, having been in command of one of Messrs. John I. Jacob's tank steamers before taking charge of the "San Isodoro."

It is an interesting fact to record that Captain Osbon's father and grandfather were both shipmasters.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended March 21st was 122,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended March 22nd was 264,820 poods, or about 4,271 tons. The total production for the year from January 14th to March 22nd was 2,781,980 poods, or about 44,871 tons. The total production for the corresponding period last year was 2,741,430 poods, or about 44,217 tons. Price of crude oil at Baku is now 42¾ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended March 21st was 26,041 poods, or 420 tons.

European Oilfields Corporation, Ltd. — The production for the week ended March 22nd was 109,400 poods, or 1,764 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended March 21st was 125,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended March 21st was 21,493 poods (347 tons).

Maikop New Producers, Ltd.—Production for week ended March 21st was 7,400 poods (119 tons).

British Maikop Oil Company, Ltd.—Production for week ended March 22nd was 13,716 poods, or 221 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended March 21st, 98,910 poods, or 1,595 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended March 24th was 501,090 poods, or 8,082 tons. Corresponding period last year, 1,621 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended March 22nd was 87,400 poods, or 1,410 tons.

Maikop Midland.—Production at Krimskaya for week ended March 21st was 5,550 poods, or 90 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended March 21st was 22,988 poods (370 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended March 21st was 1,235 poods (20 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended March 21st was 2,630 poods, or 42 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street),
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
LONDON, E.C.

# THE WORLD'S OIL EXHIBITION.

## OPENING CEREMONY BY DR. P. DVORKOVITZ.

## SPECIAL REPORT OF THE EXHIBITS AND LECTURES.

THE World's Oil Industries Exhibition is now in full swing at the Queen's Palace, Earl's Court, London, S.W., and so far its run has been highly satisfactory, exhibitors and visitors alike being well satisfied with the attractiveness of the Exhibition.

As we announced in our last week's issue, Sir Boverton Redwood, Bart., was to perform the opening ceremony, but at the last moment Sir Boverton found it impossible to be present. His place, however, was very well filled by Dr. P. Dvorkovitz, who was supported upon the platform in the centre of the hall by Mr. G. D. Smith, the general organiser of the Exhibition, Mr. John Purdy (director of the Anglo-Mexican Petroleum Products Company, Ltd.), Mr. D. A. Sutherland, Mr. Higgins and other gentlemen, a large number of visitors being present.

The Opening Ceremony: Dr. P. Dvorkovitz in the centre, with Mr. John Purdy (standing) on his right, and Mr. D. A. Sutherland and Mr. G. D. Smith on his immediate left.

Mr. G. D. Smith opened the proceedings by stating hat as most of those present were aware, that was he first really serious attempt to organise an exhibiion of that kind, devoted exclusively, as that was, to he interests of the petroleum industry. They needed not to be told that the oil industry was destined to be one of the most important of any in the world, and f any apology were necessary from him that day as o the comparatively smallness of the Exhibition, that did not apply to the exhibits themselves. The visitor would see in that Exhibition the wares of some of the most enterprising firms in the world, and he was sure he whole collection was one well worthy of the great ndustry it represented.

He was sorry to say that the gentleman who had intended opening the Exhibition—he referred to Sir Boverton Redwood—was unable to be present. An attempt had also been made to get Mr. Winston Churchill to perform the ceremony, but on March 9th Mr. Churchill's secretary wrote, expressing Mr. Churchill's regret that owing to the pressure of his work he would be unable to have that pleasure. Seeing the great interest which the British Government was now taking in the question of oil fuel, Mr. Smith said he hoped that at the next Oil Exhibition they would have the honour of seeing the First Lord of the Admiralty among them to perform the opening ceremony, and he was sure he was voicing the desires of all present when he said how sorry they were that Mr. Churchill was not with them that day.

Mr. Smith proceeded to say that he desired to express publicly his thanks to the members of the Advisory Committee who had helped him in the difficult task of organising that Exhibition, and in that connection he wished to particularly mention Sir Boverton Redwood, Dr. David T. Day, of Washington, and also their good friend Dr. Paul Dvorkovitz, who had done all he possibly could to further the interests of the Exhibition. The Exhibition of that day was a distinct advance upon the show which was organised some eighteen months ago, at Olympia, and he trusted it would be the forerunner of many larger exhibitions held in the interests of the petroleum industry. He then called upon Dr. Dvorkovitz to perform the opening ceremony.

Dr. Dvorkovitz said he was very pleased to have the honour of opening that representative Exhibition devoted to the petroleum industry, although he regretted that his friend Sir Boverton Redwood had at the last moment found it impossible to be there personally. Sir Boverton had written him as under:—

> Dear Dr. Dvorkovitz,—I am very sorry that a long-standing engagement precludes my being present at the opening of the World's Oil Industries Exhibition, as I should have been glad of the opportunity of saying a few words in commendation of the undertaking and of offering my congratulations to its originator.
>
> There is some difference of opinion in regard to the practical utility or industrial value of cosmopolitan miscellaneous exhibitions, but all those who have studied the subject agree that specialised exhibitions are not only desirable, but are vitally necessary to the active development of every industry, and that such exhibitions should be encouraged and supported as tending to promote the commercial interests of those who are directly or indirectly connected with the industry.
>
> There are obviously certain branches of the petroleum industry which do not readily lend themselves to effective representation through the medium of an exhibit, and I know that there are some who have hesitated to associate themselves with the project of an Oil Exhibition through a fear that in consequence of this difficulty the magnitude and vast importance of the industry might not be adequately demonstrated.
>
> There must, however, in specialised exhibitions, as in other matters, be a process of evolution or development, and it may be confidently predicted that each successive Oil Exhibition will be vastly better than the previous one. As regards the present Exhibition, I consider that great praise is due to Mr. G. D. Smith for the zeal and organising ability which he has displayed.
>
> Various unforeseen circumstances created exceptional difficulties, but they were all successfully overcome, and it only remains for me to express the hope that the attendance will be such as to show that his efforts are appreciated.—Yours sincerely,
>
> (Signed) Boverton Redwood.

Proceeding, Dr. Dvorkovitz said that, together with Sir Boverton, he — the speaker — had tried to organise the first Petroleum Exhibition in Paris, fourteen years ago. They formed a committee and did their best to get together a creditable show, but their efforts were not very successful. The petroleum sections of the various exhibitions which the speaker had visited—*i.e.*, Paris (1900), St. Louis, Buffalo—could not in any sense be compared with the comprehensive show they saw before them that day. He was sure the thanks of all were due to Mr. Smith for having organised such a comprehensive exhibition of petroleum products. He had displayed a remarkable amount of zeal and energy, and it was to be hoped that in the exhibitions to come he would be adequately rewarded. There was no doubt that in time the various manufacturers who catered for the needs of the petroleum industry would get used to bringing their wares to the Oil Exhibition, for through the medium of it they would appreciate the opportunities of reaching a new circle of clients. The Exhibition which he had the pleasure of declaring open was one which reflected credit not only upon the petroleum industry at large but upon its organiser, for in it were included some of the most important firms in the industry. For instance, they had the three large oil distributing companies of the world—the Anglo-American Oil Company, representing American oil, the Shell Company, representing Russia and the Far East, and the Anglo-Mexican Petroleum Products Company, representing Lord Cowdray's great interest in Mexico. There would be found much to interest and educate the visitor by a close inspection of the exhibits, but, in addition, a series of important lectures and cinematograph pictures had been arranged. He hoped the Exhibition would be crowned with success, and be but the commencement of many other comprehensive shows wherein all interests in the petroleum industry would be gathered. He had, therefore, the greatest possible pleasure in declaring the Exhibition open.

Mr. D. A. Sutherland proposed a hearty vote of thanks to Dr. Dvorkovitz. The doctor had rightly said that everything must have a beginning, and he—the speaker—hoped that the Exhibition that had just been opened would be the commencement of yearly Oil Exhibitions, each one growing in size and importance.

The vote having been accorded a hearty reception, the orchestra played "The National Anthem," and the business of the Exhibition then proceeded.

## THE EXHIBITS.

As we mentioned in our last issue, the Exhibition as a whole is particularly creditable, not only to the organising manager (Mr. G. D. Smith), but to the exhibitors themselves, who have ardently vied one with another in an attempt to produce exceedingly attractive stands. The result is that the Exhibition Hall contains an assembly of some of the most enterprising firms associated with the petroleum industry. In other columns we deal in greater detail with several of the principal exhibits, but had it not been for pressure of space, numerous other firms would have been touched upon at length.

The working exhibits are, without doubt, proving a special attraction, and it is a pity that, owing to unavoidable delays, the J. F. Lucey's exhibit of a Parker rotary in the grounds has only just been completed. The visitors during the present week, however, have been able to see quite a unique exhibit on the stand of Compayne, Ltd., where the table of one of the new No. 2 A type of the British rotaries manufactured by Oil Well Engineering Company, Ltd., of Cheadle and London, is being operated by the Compayne system of oil transmission, which has lately made such a successful debut in various oilfields. In the oil-engine section, Messrs. Blackstone & Co., Ltd., Stamford and London, have several of their popular oil engines on view, one of which is continuously running, any crude or tar oils being suitable for these engines. Messrs. Ambrose Shardlow & Co., Ltd., Sheffield, and Messrs. W. J. Bates & Co., Ltd., Manchester, are also exhibiting several of their oil engines, but undoubtedly one of the most attractive working exhibits is that of an Alldays & Onion's oil-fired furnace, running on Mexican oil.

The whole of the principal oil-distributing companies in the United Kingdom are well represented, three of the most prominent stands in the Exhibition being those devoted to the display of the crude and refined oil products marketed by the Anglo-American Oil Company, Ltd., the British Petroleum Company, Ltd., and the Anglo-Mexican Petroleum Products Company, Ltd., with which latter concern is associated the Bowring Petroleum Company. Then, apart from the Lucey exhibit in the grounds, Mr. Skilton, the London manager, has arranged a spacious and very interesting show just as one enters the Exhibition Hall. The Holland Drilling Company have a good display, the chief feature of which is the 24-h.p. portable drill, suitable for any system of boring. Messrs. Werf, Conrad, Ltd., of Haarlem, have an artistic display of hand prospecting drills, under reamers, etc., while Mr. John Thom, the well-known Government contractor, has on exhibition specimens of cores of varying diameters taken in course of boring, in addition to a very interesting arrangement showing the actual strata passed through in the drilling of an oil well in the Far East. The Ingersoll-Rand Company have a hand power operated Davis Calyx drill, as well as pneumatic tools and sample cores.

The E. W. Bliss Company and Messrs. Rhodes are exhibiting their well-known oil can making machinery, but these respective exhibits, like others, are referred to in another column.

In our next issue we intend to dilate upon other exhibits, for it is obviously impossible to write anything approaching a comprehensive notice of the various exhibits in the Show, each of which is full of interest to the oil man.

## The Anglo-American Oil Company, Ltd.

Pioneers in this country in regard to the widespread distribution of American petroleum products, the Anglo-American Oil Company, Ltd., have a particularly fine show. It is highly artistic in its decorative element, palms and pink ivy geraniums relieving the otherwise plain though solid boldness of the main design. Upon the stand itself is a wealth of samples of petroleum products, all arranged with that master hand which is so distinctly traceable in anything attempted by the Anglo-American Oil Company.

It is a matter of impossibility to detail all the numerous petroleum products displayed, though upon each the eye of the oil man longingly rests, for they all tell an eloquent tale of the perfection which is invariably associated with every product marketed by this pioneer company. Several miniature stands are devoted to the display of the Company's refined products. For instance, on one we see samples of American pale mineral lubricating oil, lubricating grease, American petroleum pitch (180° F. melting point), American petroleum jelly (semi-refined); upon another are bottles of dark machinery oil, American lubricating grease (soft and hard), lluminating oils of the well-known "White Rose," "Royal Daylight," and "Crown Diamond" brands, together with vaporising oil for engines, as well as various samples of paraffin wax, scale, and candles; while in another part of the exhibit we see samples of the Company's "Roadoleum," prepared both for the purposes of a road binder and an asphalt dressing.

A model of the oil tanker, "Narragansett," one of the largest vessels of the fleet engaged in supplyng this country with its American petroleum products, takes up almost the whole of one side of the exhibit; while if one desires to see the practical application of oil for heating purposes, there are he Company's wick, blue-flame cookers and "Perfecion" heaters, which are becoming more deservedly popular, even in this country. The familiar tins of "Perfection" and "Taxibus" motor spirit are there, s well as models of the Company's road tank cars, etc. An educational half-hour can well be spent at this one tand.

## The Anglo-Mexican Petroleum Products Company, Ltd.

It is only befitting the enterprise displayed by Lord Cowdray's interests that the Anglo-Mexican Petroleum Products Company, Ltd., the marketing concern for Mexican petroleum products, should have what may be regarded as one of the most artistic and most comprehensive exhibits in the Hall. The stand itself, which occupies a central position, is in white and gold, the central arches which are the base of the decorative scheme being adorned with numerous electric lights, relieved by hanging baskets of geraniums. The effect achieved by the designer of the stand, completed as it is by the display of Mexican petroleum products abutting the four main aisles, is particularly attractive, and reflects credit upon all concerned.

The company is naturally making a great display of the varied high-grade products of the Mexican Eagle Oil Company, Ltd., the liquid products being exhibited in show bottles, while the solid samples of "Mexphalte" and "Fluxphalte"—the former for road-making and the latter an ideal road-spraying material—are also on view.

Several interesting models of various road sections constructed or dressed with these materials are shown, together with penetration and ductility machines which represent the latest scientific methods of testing bitumen for road purposes, are also shown. A feature of the exhibit, however, is the large model of the tank steamer "San Fraterno," which, as our readers are aware, is one of the gigantic fleet of twenty mammoth oil-tankers specially built for the transport of Mexican oil products to the markets of the world. These enormous vessels will collectively transport a quarter of a million tons of petroleum products in one voyage.

The Bowring Petroleum Company, which is associated with the Anglo-Mexican Company, are exhibiting on the same stand their well-known brands of "Mex" motor spirit, "All's Well" lubricants, and high-grade lamp oils. The whole exhibit is rendered the more interesting by reason of the display of a number of photographs of fuel oil installations and Mexican oilfield pictures, and is worthy of a close inspection by all interested in the consumption of high-grade petroleum products.

Upon an adjoining stand Mexican fuel oil is seen in actual operation, Brett's and Alldays & Onions' oil tankers being used to fire furnaces.

## Messrs. Benjamin & Co.

Occupying one of the central positions in the Hall is the exhibit of Messrs. Benjamin & Co., the well-known oil brokers, of 61, St. Mary Axe. E.C., and a most interesting display of petroleum products, in which the firm so largely deal both in this country and on the Continent, has been got together. The samples of petroleum products are arranged upon several tiers, the various colours of the oils themselves being thrown into great relief by a white background, the artistic effect being heightened by a number of palms arranged at the several corners of the exhibit. As is known, Messrs. Benjamin & Co. are the sole British and Continental agents for the various refined petroleum products of the Indian Refining Company, of New York, sales for which are arranged on the basis of car-load lots of 65 barrels. So wide is the range of the Indian Refining Company's products that it is impossible here to enumerate them: let it suffice to say that some 16 samples are displayed, all of which represent that high standard of excellence which is synonymous with the Indian Company's specialities. Messrs. Benjamin, however, call special attention to the red oils of varying qualities, as well as to the gas and fuel oils, which have already earned an enviable name in the large consuming markets. As sellers also of the products of independent American refiners, numerous samples of these refined oils are on view, Messrs. Benjamin being in a position to quote for practically unlimited quantities of prime and water-white kerosenes, gas oils, fuel oils, and motor spirit in bulk, ex New Orleans, from the independent refineries of the States.

BENJAMIN & Co
OIL MERCHANTS & BROKERS, 61 ST MARY AXE, LONDON E.C.
BENJAMIN & Co
OIL MERCHANTS & BROKERS, 61 ST MARY AXE, LONDON E.C.

One portion of the exhibit is given over entirely to a display of medicinal tasteless and odourless oils, and white and half-white oils. A speciality is also made of transformer oils, for which there is an ever-increasing market both in the United Kingdom and on the Continent. The careful observer will appreciate the absolute necessity of having for transformers a lubricant of the highest possible grade, and it is safe to say that those samples exhibited by Messrs. Benjamin represent the last word in high-class lubricating oils, and what is of the greatest importance to the consumer is the fact that these oils cost but a trifle more than the varying middle or low class lubricants, of which not a few are still to be found. Samples of batching oils, non-emulsifying oils, and brilliantine oils, together with paraffin scale and wax, complete a display which has attracted far more than passing attention.

## Messrs. Smiths' Dock Company, Ltd.

Messrs. Smiths' Dock Company, Ltd., and Messrs. Thomas & Wm. Smith, Ltd., have one of the most attractive displays in the whole Exhibition. Messrs. T. & W. Smith are well known in the oil world as makers of wire ropes of various descriptions for all oil-well work, and numerous samples of their specialities are on exhibition. Messrs. Smiths' Dock Company, Ltd., occupy the major portion of the very artistically arranged stand with models of the Meyer-Smith system of oil-fuel burning. This popular system, it is scarcely necessary to say, is on the principle of supplying oil to the burners in each furnace, under pressure by means of suitable pumps, through filters and heaters. The whole installation has been recently re-designed, and the greatest economy and highest efficiency have been obtained by exhaustive experiments and actual trials at sea on ships that have been fitted. It may here be mentioned that the advantages of the system are; (1) considerable reduction in the initial cost of the installation; (2) reduction in weight of installation, combined with greater strength of all parts exposed to oil and steam pressure; and (3) the oil is supplied at low pressure and high temperature, thereby reducing the strain on all parts exposed to oil.

The several models on the stand afford a unique opportunity of studying the system of application of oil-fuel burning to marine engines, one model to scale of a midship section of an oil vessel, with complete oil-burning apparatus, being very educational. An oil-burning furnace front, actual size, is also on exhibition, together with one steam oil-fuel heater, a four-part oil-burning distributing chest, a three and a two part ditto, as well as eight small models of furnace fronts. In view of the attention now being paid to the use of liquid fuel, it is not surprising to find that the various specialities and models on view at the Smiths' Dock Company's stand have been the centre of attraction.

The MEYER SMITH SYSTEM OF OIL BURNING
LONDON OFFICE, 17, GRACECHURCH St. LONDON, E.C.
HEAD OFFICE, GUILDHALL, NEWCASTLE-on-TYNE
THOS & Wm SMITH Ltd.
WIRE ROPES FOR OIL WELLS

## The E. W. Bliss Company.

The E. W. Bliss Company, of New York, with London offices and extensive works at Pocock Street, Blackfriars, S.E., have a comprehensive show of their popular makes of petroleum can making plant, many of which machines are already well known to our readers. The E. W. Bliss Company are the largest manufacturers of such machinery in the world, and it says much for the general excellence of their plant when it is mentioned that they have had the honour of supplying practically the whole of the petroleum case making plant for the Standard Oil Company for their numerous installations in almost every part of the world, besides supplying large quantities of similar machinery for other large petroleum interests in the Far East and elsewhere.

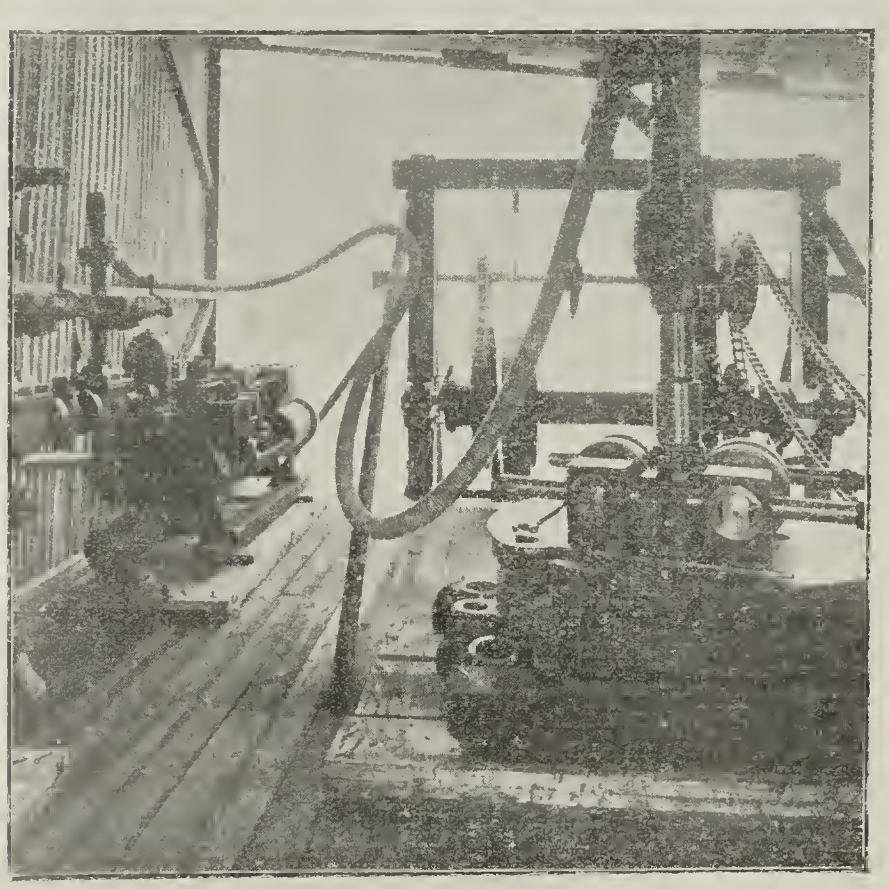
The several machines and presses on the Bliss Company's stand are all in actual operation, and thus the visitor has an opportunity of noting the rapidity with which petroleum cans and cases of various shapes and sizes can be made automatically. A few of the Bliss specialities are well worthy of mention here, as showing in a most conclusive manner the perfection which has now been attained in the making of all necessary receptacles for petroleum and its products. First there is the "Bliss" automatic double seaming machine for either square, oblong, oval, or any irregu- ar shapes. This ingenious compact high-speed nachine is provided with automatic movements which eave the operator nothing to do but to place the can on the chuck and depress the handle; then the process of double seaming is absolutely automatic. The machine is the latest type, and we learn that it is being largely adopted for irregular work. Another nachine worthy of careful inspection is the Company's utomatic combination feed press, which completes the dome tops of the familiar liquid polish cans by a process of five operations at each stroke. In actual working conditions the machine therefore makes 200 operations per minute with its forty strokes. The "Bliss" utomatic wire handle machine, the inclinable power presses with patent zig-zag feed, and the lock-and-lap seam body making plant are all to be found in operation, the exhibit being admitted to be one of the most interesting in the whole show.

## The J. F. Lucey Company's Special Exhibit.

It says much for the enterprise of the J. F. Lucey Company, the manufacturers of the well-known Parker rotary drilling machine and other oilfield machinery and tools, that they are the only firm to have a special working exhibit of Parker Mogul rotary drilling machinery in the grounds.

When the present exhibition was first decided upon, several manufacturers of oil drilling machinery were approached, as a result of which it was tolerably certain that at least three or four drills would be actively engaged in boring operations in the grounds during the run of the Exhibition. Then difficulties presented themselves, and one by one those firms who had at first favoured the idea of having a special working exhibit in the grounds fell out of the running the J. F. Lucey Company alone being determined to show one of their rotary machines in actual work. But even in the case of the Lucey Company, there were difficulties ahead which culminated in the whole of the outfit being considerably delayed in transit from the States; as a matter of fact, it only reached Southampton last Saturday afternoon, being transported to London later in the day.

The "Parker," however, is now safely installed in front of the entrance to the Queen's Hall, and during the coming week demonstrations will be given to those interested in the rapid and up-to-date drilling of an oil well. The exhibit is erected on a full-sized derrick floor, exactly as for drilling operations on an oilfield, and during the next few days should be closely inspected by every visitor.



The J. F. Lucey Company's Exhibit in the Grounds.

Inside the Hall the Company has also an extensive exhibit of oilfield supplies, including standard oilfield pipes and couplings, wire rope clamps, Acme pull rod couplings, rubber pump valves, Dresser pipe coupling, drilling jars, solid wire rope sockets, casing hooks, flexible metallic hose, and Pyrene fire extinguishers, in addition to a number of logs of oil wells drilled with the Parker rotary.

## Messrs. J. Rhodes & Sons, Ltd.

Established at Wakefield as far back as 1824 as sheet metal working machinery makers, Messrs. J. Rhodes & Sons, of Grove Iron Works, have long since been recognised as specialists in the making of machinery for all kinds of petroleum cans and cases, and their exhibit near the centre of the hall does them every credit. It is to be regretted that the necessary electric power has not been available from which to have in actual operation the various machines on exhibition at this stand, but it is expected that this deficiency will be made good during the coming week. The machines of Messrs. Rhodes are, however, so well known that the fact of their not being in actual operation comes only as a matter for regret from an exhibition point of view, since the greater the number of working exhibits, the more attractive becomes the show.

J. RHODES & SONS LTD
SHEET METAL WORKING MACHINERY
PETROL TINS
J. RHODES & SONS LTD
SHEET METAL WORKING MACHINERY
SPECIALISTS IN PLANT FOR MAKING PETROLEUM
ESTABLISHED 1824
UM REVIEW

Messrs. Rhodes are displaying four of the principal machines they manufacture for the needs of the petroleum industry. One is a press for making the tops and bottoms of the standard five-gallon petroleum cans, a body cutting and bending press, a grooving press for locking both side-seam joints simultaneously, and a squeezing machine for attaching the tops and bottoms to the bodies.

The photograph which we here reproduce gives a good impression of the exhibit, but those visitors who desire more detailed information of the various machines will find Mr. Gee, the company's London manager, in daily attendance.

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Among the numerous American visitors to the Review stand at the Exhibition this week were Mr. D. Daniels, Vice-President and General Manager of the D. and B. Pump Supply Company, Los Angeles, Cal., and Mr. Frank Child, of New York.

## The Holland Drilling Company.

Mr. John Wells, the London agent of the Holland Drilling Company, has an exhibit which is daily attracting increased attention, for here the visitor sees a complete 24 horse-power portable drilling rig, suitable for boring to depths of over 2,000 ft., and easily adaptable for any system of drilling. As contractors and mineowners the Company has at its disposal the experience of many borings undertaken under widely varying circumstances, and as a consequence it is in a position to continuously improve upon its plant and methods. Though the Company has to some extent specialised in the mud flush percussion system for exploratory work, it is not wedded to any one system, but employs, according to circumstance, Canadian standard and rotary methods, using the former method for their wells in Roumania and for export to other countries where the Canadian system is particularly favoured. The Company makes a speciality of hand-boring outfits, for in new and unexplored fields it is frequently desirable to have a light portable outfit that can be worked by hand or by a small oil engine. For this class of work the Company manufactures: (1) a hand rig for percussion and mud flush capable of going from 300 to 400 ft.; (2) a hand rig for core drills to 500 ft.; and (3) a portable fitted with an oil engine and suitable for depths up to 800 ft.

HOLLAND DRILLING CO
HOLLAND DRILLING COMPANY LTD
HOLLAND DRILLING CO
MANUFACTURERS OF MODERN DRILLING RIGS

Upon an adjoining stand the new "British" rotary table is in operation, this having been manufactured from Mr. Wells' designs by the Oil Well Engineering Company, Ltd. In our next issue we intend to refer in detail to this, and also to the ingenious system of transmission by means of oil used for providing its power.

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**Photographs.**—The whole of the photographs of the Exhibition stands reproduced in this issue have been taken by the Exhibition official photographers, Messrs. Walshams, Ltd., Doughty Street, London, W.C., who are well-known photographic specialists.

# THE EXHIBITION LECTURES.

Practically upon every evening during the run of the Exhibition, lectures upon a variety of petroleum subjects will be given in the Cinema Hall, between the film displays. During the present week several very educational subjects have been presented at the lectures, which have without exception been well attended. The lectures next week, as on this, will start at 7.30 in the evening and be concluded within the hour.

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## The Romance of the Petroleum Industry.

### Opening Lecture by Dr. P. DVORKOVITZ.

On Monday evening Dr. Paul Dvorkovitz inaugurated the series of evening lectures, by delivering a most interesting address upon "The Romance of the Petroleum Industry."

Mr. D. A. Sutherland took the chair, and in opening the lecture said it was indeed a pleasure and an honour to take the chair at the inaugural lecture in connection with the series of lectures to be delivered during the Exhibition. He could only hope that as a result of such lectures much good would accrue to the industry as a whole. But it was a special pleasure to be in the chair that evening, inasmuch as the lecturer was his particular friend—Dr. P. Dvorkovitz—a gentleman who was well known to all associated with the petroleum industry, but particularly well known to the speaker for the past 25 years. Dr. Dvorkovitz had an indomitable spirit, which had made him a pioneer in connection with the petroleum industry; but it was not always the pioneer who met with his proper reward—and that remark applied in the case of Dr. Dvorkovitz, as it also lid to the organiser of that Exhibition, Mr. Smith. He had reason to hope, however, that future Exhibitions would be not only better supported but also more numerously attended.

As a pioneer, Dr. Dvorkovitz had devoted his time and attenion to subjects years before their importance was fully appreciated. For instance, 20 years ago the Doctor made a long study of the problem of producing petroleum from coal, a subject which was agitating the minds of many to-day, yet which Dr. Dvorkovitz foresaw nearly a quarter of a century ago. Then he Doctor's next work was the establishment of the Petroleum Review: in connection with that publication the Doctor had ought an uphill fight, for a technical journal was not created in a single day. The Review, however, had made a name for tself, for not only was it the oldest paper in this country, but t was far away the best. The Doctor had always kept a high tandard in the journal, and he—the speaker—had not the lightest doubt that the Review would more and more become he standard journal upon petroleum subjects. Then, at a later tage, the Doctor undertook, single-handed, the formation of a Petroleum Institute: it was 14 years ago since that Institute was founded, and for it a special building was taken in the City of London, and there a series of lectures was arranged for tudents—the speaker himself having the honour to deliver one of the lectures. It was in those and other directions that Dr. Dvorkovitz had been one of the pioneers in the petroleum industry, yet the speaker knew that he had not reaped a single dvantage from all his work. Then Dr. Dvorkovitz founded a series of petroleum congresses, which had grown to be of nternational importance: he need only refer to the Congress at Bucarest, the proceedings of which the Roumanian Government had reproduced in a volume as a standard work. It was therefore well that those who reaped enormous fortunes from the petroleum industry of to-day should give a thought to the work of the pioneer: it was certain, however, that the name of Dr. Dvorkovitz would go down to posterity as one of the pioneers of the industry.

The subject chosen for that evening's lecture—"The Romance of Petroleum"—was one which the speaker would have liked to have taken as a title, for one could dwell upon it for a very long time, because they could trace back the petroleum industry to those remote times when worshippers went to the fire temples of the East, or go back to the time of the Romans, when lamp oils were then used. Then as the age of petroleum dawned, they found the oil used under boilers, but the methods for burning it then were of a very crude type. The speaker believed he was one of the first to use oil in that manner, but it was done in a very wasteful manner, and most of the heat was lost. Now they had the day of the motor-car, the internal combustion engine, and the Diesel engine, which had led to such enormous advantages and economies. Without doubt the history of petroleum was one long romance, but of that they would hear from Dr. Dvorkovitz, who he had pleasure in asking to address the meeting.

Dr. Dvorkovitz, in opening his lecture, said he was greatly obliged to the Chairman for his kind remarks about himself. He would never forget when he—Dr. Dvorkovitz—first arrived in England. Upon his arrival he met three gentlemen, Sir William Ramsay, Mr. MacNab, and Mr. Sutherland, and he was pleased to think that those three gentlemen were still extending the hand of friendship to him. Whatever he had done for the petroleum industry had been done for the sake of love and devotion to a subject which had a great attraction to anyone who took an interest in it. Petroleum had been known from time immemorial, and had been chiefly discovered by the various tribes in India, America and other countries. From time immemorial also they found the fire worshippers going to Baku, where the old fire temple existed to the present day; and he well recollected, in 1882, when he visited Baku, seeing the last priest of the fire worshippers, who had been waiting the arrival of another priest to take his place. In America, too, the tribes looked upon petroleum with a great amount of awe and solemnity, for when he was in Texas he found that the Indians generally held their ritual feasts at a lake of oil close to Sour Lake, where the oil springs were. He had occasion on one of his visits to speak to Dr. Moody upon the subject, and he was informed that for centuries past the Indians regularly journeyed to those oil pools to perform their various ritual ceremonies.

But the petroleum industry as the present day knew it started only when Colonel Drake drilled his oil well, in 1854, in Pennsylvania, though, of course, it had existed under a different aspect for countless ages before. In Persia, for instance, they knew that army generals or persons who had rendered some great service to the country received grants of land from the Persian Government for the exploitation of the oil contained therein. They found, too, that the same thing was carried out in Burma, where oil land grants were given to Royal princes and other notable persons—rights which were still recognised by the British Government.

The development of the petroleum industry, however, was due to the fact of the great number and variety of the products which were contained in the crude oil. They knew that the products of crude oil were not fixed substances, but they varied in a wide measure, for practically every one degree of boiling point contained a separate product.

As would have been gathered from the Chairman's remarks, he—the speaker—had been associated with the petroleum industry for a great many years; he sometimes did not dare to think how long it was. His first association with it, however, was with the founder and the great inventor of the application of petroleum residues for the purpose of manufacturing lubricating oils in Russia—he referred to Mr. Ragosine—with whom he became associated, in 1879, for the purpose of investigating the various products received from distillation. At that time by the process which the refiners adopted, something like 70 per cent. of the oil, in the form of residues, was burned to waste in the fields. There was at that time no use for the residues, for the simple reason that the application of them for oil fuel purposes was unknown. Even when they were to some extent used for power purposes, they were utilised in a very rough way, for the oil was allowed to run down on to the furnaces, the resulting smoke being so enormous that the refining district of Baku got the name of Blacktown—a name which it has kept to this day. But with the partial utilisation of the residuals for the purpose of making lubricating oils, the remaining residues could be advantageously used as fuel without the hitherto attendant volumes of black smoke. The speaker remembered, in 1884, introducing the Baku residues into Moscow for burning under boilers as fuel, his first experiment being at one of the leading cotton-printing factories. The proprietor, however, did not readily fall in with the idea of the experiment, and therefore took the precaution of putting a boiler half a mile from his factory, in case (as he said) of accident. Since that time, however, liquid fuel had spread enormously throughout the Russian Empire, and to-day in Moscow manufacturing district alone over 2,000,000 tons of liquid fuel were used every year.

The next step by the speaker in the utilisation of the products from petroleum was the application of a middle product—solar oil—a product which was received after they distilled off the light spirit and the lamp oils. That solar oil, as it was now called, was formerly of no use whatever. It was an intermediary product: no good for lamps because it was too heavy, and not suitable for lubricating oil because it possessed little or no viscosity. It was therefore a drug on the market, and generally used to be put into the liquid fuel. Twenty-four years ago the lecturer suggested the introduction of that solar oil into the gas-works at the Gas Light and Coke Company's works. At that time the Company was using cannel coal for the purposes of gas enrichment. As was known, according to the standard of Parliament, illuminating gas had to have an illuminating capacity of 16 candle power, whereas the ordinary coal only gave a gas of 12 candle power. The method therefore was to use three parts of ordinary coal to one part of cannel coal, in order to produce gas of the required standard. To use cannel coal was naturally a great disadvantage to the coal-gas companies, inasmuch as a large quantity of naphthalene was formed, which choked the gas pipes, and the result was a smoky gas. In addition to that, the coke received had been very dirty, and rendered soft by the presence of the cannel coal It was at this time that the speaker came forward with his process for the utilisation of this intermediary product from petroleum—solar oil, and in the experiments which he made, his clients had to deposit £5,000 in order to compensate the gas company in the event of any damage being done to their buildings, etc., at Beckton. In his experiments he treated 5,000,000 cubic feet of gas with the solar oil, and the experiments were very successful, and from that day to the present solar oil had been used in ever-increasing quantities for gas-enriching purposes, last year alone no less than 70,000,000 gallons being imported into the United Kingdom for gas enrichment.

The next question in the development of the oil industry was that in connection with motor spirit—a product of distillation which was the most valuable of all the refined products, and which commanded the highest price. For a number of years, however, that valuable product was burnt to waste in the fields of Sumatra, where, as was possibly known, the crude oil yielded 45 per cent. of spirit, for there was no use for the product. At that time the speaker was associated with the Shell Company, and the question was whether they could not deliver the spirit to this country in bulk, comparatively small as were the quantities consumed at that time. The motor spirit was delivered in wooden barrels, and it was a source of much danger—so much so that its use could not be developed. The first attempt to bring motor spirit in bulk to this country was with the "Murex," which brought 1,500 tons, and the Russian Government were so interested in the experiment that they sent representatives to see the experiment carried out. At that time motor spirit was regarded as such a dangerous commodity that its transport in tank cars was absolutely prohibited—so dangerous was it considered to be; yet to-day its use was world-wide, and the United Kingdom alone received over 100,000,000 gallons per annum from the producing countries.

From that short description they would see what drastic changes and what remarkable developments had taken place in regard to the petroleum industry during the past couple of decades. Without doubt the present was an age of oil, for there was scarcely any industry in which oil in some form or other was not used. Both for light, heat and power purposes, as well as for a lubricant, the products of petroleum were to-day consumed in large quantities in every corner of the world, but in addition to that, the use of oil entered largely into many industries. In the wool industry, for instance, it is used for extracting wool fat; while to-day, as formerly, petroleum held a distinct place for medicinal preparations.

With those brief remarks upon the various products of petroleum Dr. Dvorkovitz passed on to speak of the men who had been instrumental in the enormous growth of the petroleum industry, and he was pleased to say he had been very fortunate to meet practically all the pioneers who had by their tact, energy, and perseverance materially assisted in that development. He was at Baku when Nobel first started his oil refining operations in that centre of crude oil production, and without question it was due to him—to the wide views he had taken—that the Russian industry, which was then in its infancy, had so considerably advanced during the intervening years. It was left to Nobel to introduce the continuous system of distillation, which revolutionised the refining of petroleum products. Nobel introduced that system for Russian oils, which prior to that time had been treated in the ordinary stills, with the result that the refined oil was of very bad quality. In fact until 1883 most of the illuminating oils were imported from America into Russia, but owing to the use of the continuous system of fractional distillation, Nobel was able to produce an excellent illuminating oil, which not only drove the American oil from the Russian market, but which allowed the Russian oil to gain a high position in the various European markets.

Then they had Mr. J. D. Rockefeller, who had been the pioneer of the American oil industry in the transporting and marketing of the petroleum products. He had shown to the world how oil products could be quickly and cheaply transported, and the greatest service which had resulted to the petroleum industry at large was that it was shown how to transport oil by pipeline. The speaker did not believe that had Mr. Rockefeller introduced a system of co-operation with all other American oil refiners, and formed a gigantic trust for selling petroleum products, he could have rendered such a service to the industry as he did when he proved that it was possible to transport oil across continents by means of pipelines, for owing to the pipeline system of transportation it had been possible to develop the oil industry all over the world, in spots very remote from coastal points.

Next they had the remarkable development of the petroleum industry in Roumania, for which the Steaua Romana was to a very large extent responsible. That company had been the first to introduce proper methods of drilling and refining, and had it not been for the officials of the Steaua Romana, Roumania to-day would not occupy the proud position she did among the chief petroleum producing nations of the world.

Coming nearer home, they had three gentlemen who had been the chief pioneers of the great advancement which this country had made in regard to the petroleum industry. First there was Sir Marcus Samuel, whom the speaker remembered when he launched out upon his bold policy in connection with oil—when he set out to develop the Far Eastern fields, and to come into direct competition with the Standard Oil Company. Many people wondered why Sir Marcus ever embarked upon what was then considered such a rash policy, yet they all knew that it was owing to his foresight, influence and energy that he had developed fields in the Far East which were second to none in the world to-day; while, in conjunction with Mr. Deterding of the Royal Dutch, the world-wide organisation which had been created stood only second to that of the Standard Oil Company. Then they had that genius—Lord Cowdray—who had developed such a vast oil industry in Mexico in such a remarkably short space of time. The Mexican oil industry had been so rapidly developed that to-day not only was Mexico supplying its petroleum products throughout the South American continent and Europe, but it was even supplying Russia with considerable quantities of its oil for fuel purposes.

From what he had said he thought all present would agree that the petroleum industry represented one great romance, and yet that romance was to the present day being continued, for there was no doubt the petroleum industry was still young and capable of considerable expansion in every direction.

A hearty vote of thanks was then passed to Dr. Dvorkovitz for his interesting lecture, to which the doctor briefly replied.

# Drilling Methods, Past and Present.

By Mr. **JOHN WELLS.**

On Tuesday evening Mr. John Wells (consulting engineer) occupied the Lecture Hall, when he delivered his interesting lecture entitled "Drilling Methods, Past and Present," Mr. W. H. Booth, F.G.S., taking the chair.

Mr. Wells' paper was as under :—

I have been asked this evening to address you on the subject of "Drilling, Past and Present" ; it is a very big one, and one that I fear can hardly be done justice to in the limited time at our disposal, in fact I might well apologise to you for dealing with the matter in so cursory a manner. However, if I may assume that my apology is accepted, the worst and most difficult part of the evening will be over for me.

When we come to consider drilling and to weigh past against the present, we have to acknowledge that the present is not as far ahead of the past as we should all like to believe, except perhaps as regards systems employing mud flush, either for Rotary or Percussion drilling.

The older methods of Percussion, dating, I believe, from very early days in the history of China, are to-day copied and applied in all pole and percussion systems, though steam has replaced the manual labour of those early days. Measured in cost, the present probably compares unfavourably with the ancient, and even time occupied in completing operations varies but little, though the increased size of borings and the greater depths may be set off as a reason for the time occupied in completing a borehole.

Generally speaking, the old Chinese system is the forerunner of the Canadian, Austro-Canadian and Standard systems of the present time, though the rope has to some extent replaced the use of poles ; when, however, we come to consider the various flush processes, whether Rotary or Percussion, we may begin to register the present and relegate the past to an historical position. Even then we can scarcely pat ourselves on the back, insomuch that we still find ourselves passing through a period of evolution, wherein diverse methods of doing the same thing are each claimed to be not only the best but panaceas for all the varied difficulties encountered by the operator in oil.

Briefly, then, we describe all dry pole systems as of the past ; but, unless anyone present should infer that pole systems are, like the dodo, extinct, let me at once assure them that not only is this not so, but that the pole system, though slow as the tortoise, is, in capable hands, one of the most sure methods of drilling through complicated strata, though admittedly very slow, the average footage seldom exceeding 200 ft. per month.

The secret of success with a pole system is largely a personal one, and rests to a great extent in the sensitive hand of the driller ; providing through the sense of touch an almost telepathic union between the driller and the tools, which are at work hundreds, if not thousands, of feet below the surface.

The pole system is still largely used on the continent of Europe and in Russia ; also in other fields as an accessory, more particularly in places in which the drillers have been drawn from districts wherein steadfast votaries of the system do congregate.

Despite its many unfavourable features, there is little doubt that in the years to come a pole system of percussion drill will not only retain some considerable number of adherents, but equally will continue to prove a sure and ready help under conditions wherein more advanced systems will have failed.

The next registered advance in drilling may be ascribed to the adoption of a cable in lieu of poles ; the early cables being entirely of fibre, followed in more recent times with the wire rope. For many years a fierce war waged between the votaries of the fibre cable and that composed of steel wire, and even to-day there are many who maintain that the Manilla cable is an infinitely better drilling system than the wire rope. However, we may reasonably assume that the cause of this strife was prejudice rather than considered reasoning, or by proof in actual practice. No doubt the earlier steel wire ropes lacked flexibility and essential life or spring, but to day a rope of any desired spring can be made to suit the most exacting, but the manilla fibre is of the past on the score of scarcity and the tendency of modern circumstances to encouraging the adulteration of the pure hand-made article of a few years ago. Apart altogether from any question of preference for the fibre cable over the wire rope, the increasing depth of modern drilling operations is a large factor in its relegation to a position in history.

When we come to consider the wire rope in its relation to poles, we tread on dangerous ground, insomuch that diversity of opinion exists as to what can be done with a cable compared to what may be accomplished with poles. As a matter of fact, the cable will successfully carry out all the functions of the pole system, except perhaps in under-reaming with certain types of under-reaming implements, and in fishing operations demanding twisting or turning movements. With regard to the former the remedy is simple, viz : a type of under-reamer more suitable to the wire line, and for the latter, as there is no useful remedy, we may continue to fish with poles rather than with the line. As with the poles so with the wire line, its success in everyday practice is very largely dependent upon the operator, his sense of touch, and appreciation of the sense conveyed to him thereby. It is, perhaps, not fair to insist too deeply on the sense of touch, as hearing and sight are just as important, and in parenthesis it may be mentioned that the best operators are often endowed with a considerable degree of musical attainments.

It has already been remarked that the present is, indeed, one of evolution, with the result that we are faced with a diversity of opinion in regard to the most suitable construction of rope for drilling. This diversity leads to confusion, increased cost and varying success. There is probably no very concrete reason for the diversity, and it would be a great boon to oilfield operators and rope manufacturers if several standards could be formulated and adopted, say, three degrees of flexibility, with diameters and strengths for several definite working loads, appertaining to holes of 1,000, 2,000, 3,000, 4,000 and 5,000 ft. in depth. For example : for reasons of prejudice or experience in a field, a soft or very flexible rope is considered suitable ; then for a given load in the string of tools and for definite limit depth a standard of diameter and strength might be adopted. As matters now stand a rope is a marked success in one field and equally a marked failure in another, but the reason goes unregistered. In the one instance the rope was properly "run in" in the first days of its life, and was operated with a load just suitable and at a speed suitable to its construction, but in the other case the rope was ill-handled, and had to carry a very different weight of tools. A record is perhaps kept in the stores regarding the life of the rope and the number of feet drilled, but the circumstances of the rope's life in work is seldom, if ever, retained. As a result, neither the operator or maker has any data by him which will usefully help him in the selection of a future rope for a specific purpose. Time does not permit going further into this particular phase of modern drilling, but collection of data and subsequent standardisation may go far as an additional step forward in modern drilling methods.

With especial regard to the tools and varied implements of the driller's craft—we have certainly arrived at a stage in which no comparison is permissible with ancient history, but considering the enormous advance in the adaptation of high-grade steels and precision implements in other branches of engineering, we have little to congratulate ourselves upon. Go on to any field or into any works and examine the crude instruments that are put into the borehole. Ill-finished, ill-made, the majority of them. Cost, of first importance ; results attained, a minor consideration. Other industries have taken advantage of the modern metallurgists' skill, and adopted the improved materials, but in this business of drilling we are hide bound to the fetish of cheapness ; as a result, inferior and crude appliances are accepted and the failures multiply rather than decrease. For example :—

(1) Is the ordinary straight chisel bit normally balanced in relation to its centre line, so that when attached to stem and jars its centre of gravity and the centres of gravity of the stem and jars are coincident.

(2) Did you ever receive diagram with an eccentric bit indicating its correct centre of gravity when attached to stems or sinker bars of varying weights ?

(3) How often do jars fail and produce fishing scrapes through the pin ends, box ends and links all having different centres of gravity?

(4) Despite the variation in metals of to-day and the different circumstances of drilling, we are still using the same standard of pin and box shanks, though there is no doubt the excessive strength of the walls of the boxes is responsible for the many breakages of the pins.

The above four queries are selected merely for illustration, scores of other points as important can be raised, but because I draw attention to these, and severely criticise certain conditions, it must not be translated as a damning for the sake of damning, for in the course of our peregrinations we all find many cases of beautifully-made implements, possessing degrees of accuracy and evidence of careful design and workmanship at least as good as appertain in other branches of engineering, but the fact remains that a certain school amongst us cheerfully accept a crude proposition without due regard to the specific advantages of the higher grade though more costly instrument.

Rigs.—So far as ordinary percussion systems are concerned we have four main patterns, viz: the Standard, Canadian, Austro-Canadian, Russian, and to these we may usefully add "Portables." In principle they are all similar but vary in detail considerably, according to the local developments of the different fields in which each type finds favour. The best of the types are good and the test of time has proved their fitness for the work in a measure of success the world over. Their failures are due to several main circumstances, viz:—

(a) Faulty construction.
(b) Unsuitability for drilling through particular strata.
(c) The lack of skill and carelessness of the operator.

Either system is quick or slow according to the circumstances of the strata to be drilled; given well standing strata of medium hardness, or indeed hard, the cable percussion system is perhaps faster than any other method applicable to oil-well boring.

Despite the slowness of the method in soft and caving strata, or highly-inclined formations, the system has many adherents, in the belief that with the system it is only necessary to maintain a few feet of water in the boring, thus reducing the risk of drowning an oil horizon, or indeed entirely missing a small oil stratum; however, opinions are sure to vary—some of us incline one way and some the other. If the boring work is to be entirely relegated to uneducated labour, there are undoubted advantages in drilling dry; on the other hand, there is little doubt that other disadvantages of the system increase the risk it is sought to avoid, therefore the flush system may be safer, especially in new fields.

The outfit is cheap, and no doubt this factor weighs greatly with the average Board of Directors, the wild cat adventurers, and small gamblers with dreams of impossible riches before them.

We come now to more modern systems and combination of systems. Briefly, these may be detailed as Flush drilling methods in which it is sought to continuously bring the cuttings to surface, and maintain an open hole for considerable depth by keeping the boring filled with a muddy liquid holding a sufficient body of clay or finely comminuted matter in suspension, thus increasing the specific gravity of the fluid and thereby supporting the wall of the boring, at least temporarily and until a permanent lining may be inserted. I have mentioned specific gravity of the liquid as being a very important factor, but to this circumstance must be added other factors, viz., the heavy liquid tends to force its way into porous sands, thus forming a wall where no wall would normally exist, and further, by sealing the hole and putting pressure on the mud column, the extension of the flush further into the porous strata is not only possible, but an exceedingly useful means of choking back water, gas, and even oil should occasion demand.

The use of mud flush is by no means new, and to the best of my belief German and Dutch letters patent were granted for the method some 28 or 30 years ago, and its use with diamond drilling has been the usual practice with some drillers on the Continent of Europe for many years. The adoption of the method by American oilfield operators of late years in some of the more difficult fields has led to the wholesale development of the hydraulic rotary, votaries of which are inclined to foresee therein a panacea for nearly every difficulty that faces the operator in oilfields. Despite the advance made in recent years, there is still much to be done before a mud flush system can be universally employed, and to this end most modern improvements surely trend.

The trend of modern mud-flush systems is by no means along one line, and its application to several systems may be briefly described.

1. The Modern Hydraulic Rotary.—In this system the cutting bit is attached to a column of pipe or special hollow rods, the upper end of which passes through a rotary head or mechanical device maintaining from 35 to 45 revolutions per minute. The top of the column is fitted with a slinging arrangement and special swivel carrying a coupling to which a special hose is attached, the other end of the hose being attached to a stand or distributing pipe coupled to one or more special pumps, thus a continuous stream of muddy water is forced down the column, through the bit, returning to the surface between the drill column and the wall of the hole, carrying with it the cuttings from the operations of the bit. In this manner soft and caving formations may be pierced at the rate of several hundred feet per day with a plant which is cheap to buy, though costly to operate, however, in formations which cave and swell, which run like water, no ordinary percussion system can compete; but when we come to hard streaks and beds, the ordinary simple bits of the fish-tail and diamond-point patterns fail, and the system was unsatisfactory until the advent of the Sharp and Hughes, and later the Disc Bit provided a means of increasing the drilling speed. The former operates by crushing or disintegrating the hard rock, the latter by bringing continuously rolling cutting edges against the rock mass; both register a great advance in the science of drilling, equally both are but adaptations of well-known principles which have been employed by stone workers and cutters for many years. Much yet remains to be done by engineers to improve Rotary systems and implements, before it can be adopted as a universal system, more especially for use in highly inclined strata, fissured formations and formations which have been subjected to fault disturbances.

Everything indicates and points to the necessity of two classes of rotary methods.

(a) The ordinary slow speed machines suitable for ordinary soft formations in which the bit may cut or bruise its way easily, and

(b) A system wherein a higher rotation speed is maintained, and extreme accuracy regarding the pressure upon the edges of crushing, abrasive, or actually cutting edges.

Both systems are in use, and their combination on one drilling rig will likely prove a feature in the near future.

We may now consider the hydraulic percussion system. In this system the tools are lifted and dropped as in other percussion systems, but are connected to surface by hollow seamles drilling rods of $1\frac{1}{2}$ in. to $3\frac{1}{2}$ in. external diameter, and further connected to pumps as on the Rotary system above described.

The system develops into three main divisions, viz.:

(1) Short, "Rapid," or quick stroke and high speed.
(2) A medium stroke and moderate speed.
(3) A free fall system with stroke of any desired length.

The first method has many of the advantages of the ordinary hydraulic Rotary system, and special features not possessed by the latter. In moderately hard formations it is infinitely faster than the Rotary, and in soft caving ground there is little to choose between it and the Rotary. In very hard ground progress is slow, and recourse is then to either a free fall flush system or to cable drilling.

2. The moderate length of stroke and speed has advantage in some cases, and with it a system of flush jars is of importance.

3. The free fall system with a hollow free fall appliance enables very hard strata to be successfully perforated, and permits the main hole to be retained full of heavy liquid.

The failure in the past of percussion systems not normally employing jars was very largely due to the full weight of the column of poles stroking heavily on the bottom of the whole, with the result that the life of the rods was limited, and breakages o frequent occurrence; however, in all the more modern equipmen provision is made with buffer springs to normally maintain the drilling rods in tension, providing at the same time for jus that quick snappy blow that is so essential in breaking u and cutting through any kind of rock mass. Rods, whethe

(*Continued on page 359.*)

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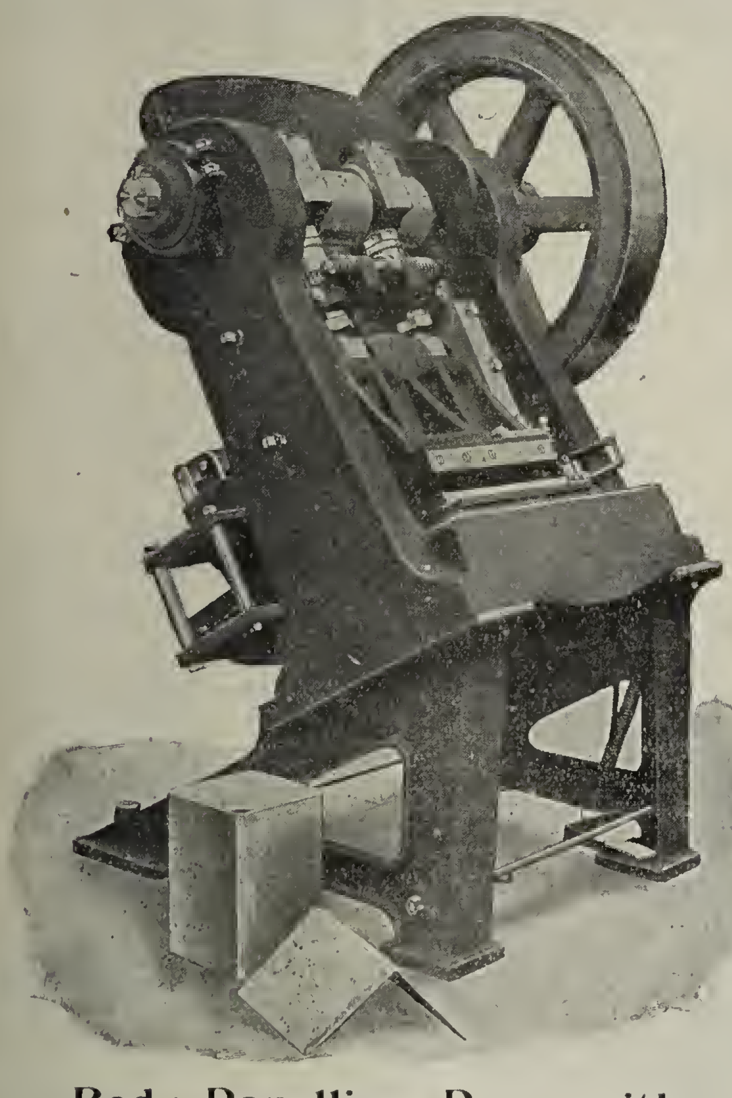

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 13/0-14/0 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-1⅛ |
| 5% Debentures ... ... | 600.000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | 9/16-11/16 |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 32/0-33/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 39/0-40/0 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | 9/16-11/16 |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 21/9-22/9 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/9-4/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1¼-1⅜ |
| " " Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047,610 | £1 | 5-5 1/16 |
| Pref. | 2,000,000 | £10 | 10¾-11 |
| Spies Petroleum Co. ... | 750.000 | 10/- | 22/3-22/9 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 700 | 703 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,400 | 3,425 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 260 | 262 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,250 | 18,300 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,000 | 1,003 |
| Russian Naphtha Society ... ... | 100 | 222 | 224 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 221 | 223 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 33/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 90/0 |
| " Pref. ... ... ... | 250,000 | £1 | 27/9 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd.. Non. Cum. Pref. ... | $8,500,000 | $10 | 40/3 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 35/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. | | | |
| Ord. (17/- paid) ... | 110,500 | 17/- | 5⅛ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 26/6 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 68/0 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179½ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601½ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36⅞ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36¼ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

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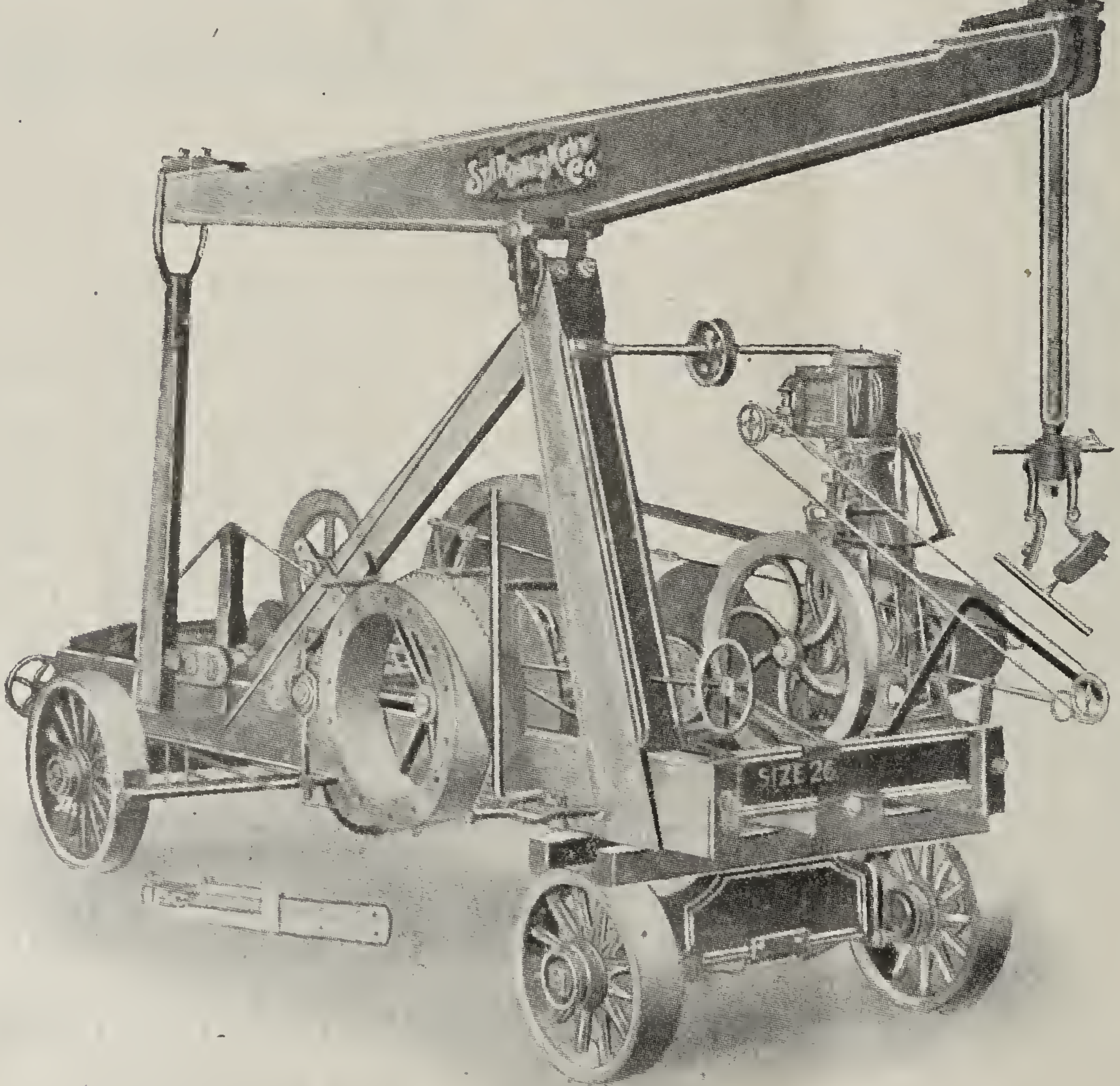

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, March 28th, 1914.

## MEDICAL AND SURGICAL USES FOR OIL.

The value of oil for medicinal uses has been recognised from the earliest times, for long before the petroleum industry entered its commercial career, the half-civilised tribes in various parts of the world looked upon oil with a respect possibly greater than that accorded to it to-day, for the valued liquid was utilised for practically all ills. Whether we look to the East or to the New Continent in the West, we see records of the great wonders wrought by the use of oil upon mankind, but to-day—in this age of scientific progress and careful research—many of the refined products of petroleum find far wider practical application, not only for medicinal, but also for surgical purposes.

There is little doubt that the average oil man has paid little attention to this aspect of petroleum consumption; his knowledge is mainly limited to recognising the fact that petroleum emulsions have secured an enviable name for the cure of coughs and the relief of bronchitis. The application of petroleum products, however, to-day finds a great application in the realm of medicine and surgery, and a study of the subject causes one to pause over Cowper's well-known lines:—

> Our wasted oil unprofitably burns,
> Like hidden lamps in old sepulchral urns.

According to many of our greatest physicians, petroleum in one form or other offers an absolute cure for many of the common ailments of to-day, while it is also of the greatest value as a lubricant of nature. It is of interest here to dwell somewhat upon this last-mentioned point, for in this respect we see the latest use of petroleum products.

Its present adoption to this latest end began nine years ago in Copenhagen. It is only now made public after full and fair tests which have extended over this period.

Dr. T. Rovsing, of Prussia, at that time observed the excellent results which he had obtained in two instances of severe damage by accidents to the hip-joint. After the injuries occurred the ensuing trouble lasted a long time, until the chronically inflammatory condition passed under the eye of Dr. Rovsing. He injected ordinary cheap yellow vaseline into the hip, and lo! the chronic disturbance disappeared as if by magic. In the nine and more years since he inserted the petroleum into the joint, there has not been the slightest sign of trouble.

At once Dr. Rovsing began to experiment with other sorts of injured, diseased, and painful joints. All sorts of conditions of sick joints — popularly called "rheumatic"—to the number of forty-four patients, were given inoculations of yellow vaseline. Eight of these required two or more joints to be treated.

In all instances the results are, according to the doctor, excellent. The aim to furnish the ends of the bones and the ligaments a lubricant, was successful. All dry, cracky, and aged joints that lack a proper lubricant from their own tissues, thus receive in petrolatum the very thing they need. The injection prevents the appearance of rigid, immovable joints, and in various other ways keeps the ends of the bones well oiled and mobile.

Another popular use of oil at the present time in surgical practice, adopted widely by many surgeons, is to bathe the tissues of the stomach and abdomen, as well as the bones, with oil immediately after the operation has been finished and before the stitches are put into the skin.

This prevents the tissues which were extensively handled by the surgeon from being irritated and sticking together after the operation. "Adhesions" as they are called, or the bits of tissue which stick to the stomach wall after operations for appendicitis and the like, are unknown when sterilized oil is used to lubricate the stomach and other internal tissues.

Then coal-oil has long been the stand-by of the medical profession for a host of ills. It is, however, a specific in the case of "pediculosis," and certain school doctors require coal-oil to be kept in all schools.

The application of petroleum products, however, for surgery purposes is not confined to this one direction, though it is almost assured that in the near future their use will be considerably extended, for at the present time several eminent German physicians are devoting the whole of their study to this end. We therefore hope to be able to publish further interesting information upon the important subject at an early date: in the meantime, we have no doubt other members of the medical profession will pay serious regard to the possibilities of petroleum, for already we have conclusive proof that its use both for medicinal and surgical purposes has been of the greatest possible value, not only in alleviating pain, but in the saving of human life.

◆

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## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MARCH 23rd, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Mar. 16. | From Jan. 1. | Since Mar. 16 | From Jan. 1. | Since Mar. 16. | From Jan. 1. | Since Mar. 16. | From Jan. 1. | Since Mar. 16. | From Jan. 1. | Since Mar. 16. | From Jan. 1. | Since Mar. 16. | From Jan. 1. | Since Mar. 16. | From Jan. 1. |
| Belgium .. | — | — | 17.140 | 148.650 | — | — | — | — | — | 32.220 | — | — | — | 1,270 | 17,140 | 182,140 |
| Canada .. | — | — | — | 4,400 | — | 23,580 | — | — | — | — | — | — | — | — | — | 27.980 |
| Dutch Indies | — | — | — | — | — | — | — | — | 3,091,400 | 13,707,270 | — | 83,400 | — | — | 3,091,400 | 13.790.670 |
| Germany .. | — | 25,050 | 42,890 | 633 260 | — | — | — | — | — | — | — | — | — | — | 42,890 | 658,310 |
| Holland .. | — | — | — | 2,680 | — | — | — | 55,000 | 788.400 | 2,386.180 | — | — | — | 590 | 788,400 | 2,444,450 |
| Mexico .. | — | 2,224,070 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,580,450 | — | — | — | 5,570,490 |
| Roumania .. | — | 4,755.390 | — | — | — | 875,000 | — | — | — | 983.380 | — | 1,207,910 | — | — | — | 7,821.680 |
| Russia . | — | 1,495,760 | 386,400 | 1,028,270 | — | — | — | — | — | 5,127,880 | — | — | — | — | 386,400 | 7,651.910 |
| U.S.A. .. | 1,681,250 | 25.502,540 | 887,910 | 9,777,860 | — | 37,190 | 1,324,810 | 20.134,460 | — | 2,600,410 | 134,260 | 1,862,530 | 5,320 | 150,530 | 4,033,550 | 60,065,520 |
| Other Countries | — | — | 7.340 | 93,480 | — | — | — | — | — | — | 3,120 | 4,150 | — | — | 10,460 | 97.630 |
| | 1,681,250 | 34,002,810 | 1,341,680 | 11.700,400 | — | 935,770 | 1,324,810 | 20,189,460 | 3,879,800 | 25,591,510 | 137,380 | 5,738,440 | 5,320 | 152,390 | 8,370,240 | 310,780<br>98 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**A Really Deep Hole.**—A well being drilled by the People's Gas Company four miles from McDonald, Washington County, Pa. is now 6,300 ft. deep. The hole has been reduced to four inches.

**Mid-continental and Gulf Coast Production.**—The daily production of the Mid-continent fields is at present as under:—Kansas and Oklahoma, 204,000 barrels; Electra, 25,000 barrels; and the Caddo field, 34,000 barrels.

**A Low Price for Road Oil.**—The Sun Company, of Philadelphia, was the lowest bidder among five companies recently for a contract to furnish the City of Boston with 400,000 gallons of road oil for use on the streets. The contract price is 4½ cents per gallon.

**A Sour Lake Gusher.**—The Sun Company has recently brought in an oil well close to the Jackson strip in the Sonr Lake field, which is stated to have a daily production of 2,000 barrels. This well is the third gusher brought in at Sour Lake, and is three miles west of the known fields.

**A New Tank Farm.**—The Texas Company is extending in numerous directions in Texas. It has now commenced work on the construction of thirteen new oil tanks at Port Arthur, six of which will have a capacity of about 8,000 tons each. The others will be somewhat smaller.

**Californian Production and Stocks.**—The detailed figures for the production of the Californian fields during January place the production at 8,737,000 barrels, which is nearly 300,000 barrels in excess of the output for December. The stocks of crude oil above ground are now over 49,000,000 barrels, the Standard Oil Company being the only concern which is still purchasing oil for storage.

**Coming Pennsylvanian Activity.**—Although none of the high-grade oil regions of Pennsylvania as yet show much activity, it is expected that in a month or so greater activity will be displayed than at any previous time in the history of the field. Every available strip of territory is to be thoroughly tested before being given up as worthless, and it is anticipated that the production as a result will considerably increase.

**The Caddo Field.**—The production of oil from the Caddo field of Northern Louisiana has materially increased by the bringing in of several good wells, of which that drilled for the Pasadena Petroleum Company is the best. It has a daily production of nearly 4,000 barrels, but is closely followed by a new well of the Standard Company. Both wells are in the De Soto parish, and bring that locality's production to over 10,000 barrels daily.

**Californian Operators open Wells.**—The policy of curtailing crude oil production, which has been in vogue for many months past, has apparently come to an end, for during January, especially in the Valley fields, a larger number of wells were opened after having been shut down for months. It is expected that this state of things will continue in view of the strengthening of market conditions and the prevailing of more favourable weather.

## RUSSIAN.

**Exports of Russian Kerosene to Turkey.**—The exports of Russian kerosene to Turkey have recently increased. The price per case is 2·07 roubles.

**Petroleum in the Kokand District.**—The Ministry of Trade and Industry intends to establish State petroleum exploitation in the Kokand district, at Sel-Rob.

**Fire at Baku.**—On February 22nd a tremendous fire took place at Baku, originating in the refinery of the Bakunit Company in Blacktown. The fire caused damage to the amount of from 200,000 to 300,000 roubles.

**A Deal in Liquid Fuel.**—The administration of the Moscow Kursk railways has acquired from Messrs. Nobel 2,000,000 poods of liquid fuel at the price of 50¼ copecs per pood, to be delivered at Nijni Novgorod during the navigation months.

**Returned Empties, Free of Duty.**—The Russian Minister of Trade and Industry has granted permission for the re-entering into Russia of empty iron drums, free of duty, which contained liquefied petroleum gas exported abroad, and also the re-entering, free of duty, of the empty cases in which were packed the containers of lubricating oil.

**Liquid Fuel.**—The Russian Ministry of Trade and Industry has recently worked out a series of measures in order to reduce the prices of liquid fuel. For this purpose it will open in May next auction sales for a series of virgin petroliferous lands. It will also undertake extensive developments of exploitation of petroleum fields on behalf of the State railways, and will shortly undertake exploration boring on twenty-one new plots, the number of which is to be increased by a further twenty-nine later on.

## ROUMANIAN.

**Nafta Company.**—An Antwerp bank, which had the option of 3,500 shares in this company, has now exercised its option and paid for the shares, so that the capital of the company is now 5,000,000 francs.

**The Alliance Company.**—The administration of this company has delegated Mr. M. A. Müller, the technical director of the Steaua-Romana, to conduct the business of the company with full power of attorney.

**Rosetti-Tetzcanu Company.**—This company has recommenced its exploitations in the Bacau district, which land was leased to the Romana-Americana, at the price of 150,000 francs. There are at present on the fields ten wells, which yield about 2,500 tons a month.

**General Union of the Petroleum Industrials.**—Negotiations between the Union and a representative of the petroleum industry, in order to establish prices of residuals, still continue. Important concessions are going to be made by the Industrials in regard to this question.

**Dutch Roumanian Tzintea Company.**—The balance sheet of this company for the year closed on December 31st, 1913, shows on the capital of 1,000,000 francs an income of 7,859 francs, as against an expenditure of 50,603 francs, thus showing a loss of 42,744 francs. During the preceding year the loss amounted to 61,750 francs.

**Benzine and Millers.**—Great agitation is proceeding among the Roumanian millers in favour of a reduction of prices of denaturated benzine, which is used by the millers as fuel in their motors. Quite recently the refiners made a considerable reduction in the prices of benzine for this industry, but the millers are not contented, and are asking for new privileges.

**Eruption of Hot Water at Filipeshti.**—After four months of continuous eruption of hot water from well No. 10 of the Astra-Romana, at Filipeshti, the well has at last been closed. At the beginning the eruptions were of tremendous force, spouting every day enormous quantities of hot water and salt, and causing great damage, but gradually the force of eruption diminished so that it was possible to approach the well and close it.

**Auxiliara Company.**—In order to give a larger development in Roumania to the transport of petroleum products in tank wagons, several enterprises interested in this branch of the industry have united into a company under the name of "Auxiliara," with a capital of 5,000,000 francs, in 25,000 shares of 200 francs each. The administration of the company will be at Bucarest, and the general manager is Mr. Richard Kobici.

## GALICIAN.

**Acquisition of the Vacuum Oil Company.**—The Vacuum Oil Company has secured the purchase rights for the wells Esther and Diamond, at Boryslaw, at the price of 1,500,000 kronen.

**French Capital in the Galician Petroleum Industry.**—A French group, with Mr. Graf Maurice Mougeot at the head, has acquired the Bitkow fields of Mr. Norbert Gold, and also other extensive fields at Pniow.

**Boring Activity in Austria.**—Boring activity at Bitkow is now very lively. Well No. 1 of the Ropex Company has reached a depth of 103 metres, at which it shows traces of oil, which gives hope for good results. In the proximity of this well the State has commenced boring the well Emil I. The State also intends to make extensive boring on its lands at Pniow, Pasieczna and Lubiznia. In the same locality boring has also been undertaken by the Opiag Company. The plot belonging this company has an area of seventeen Austrian acres, and is situated close to the well Moritz No. 1 of the Montan Company.

# Prospects of a South African Mineral Oil Industry.

H.M. Trade Commissioner for South Africa (Sir R. Sothern Holland) has, says *The Board of Trade Journal*, forwarded a copy of the "Report on the Petroleum Prospects in the Union of South Africa," which has been prepared by Mr. E. H. Cunningham Craig, B.A., F.G.S., who has been carrying out investigations on behalf of the South African Government.

The results of these investigations show that there is little likelihood of any extensive oilfields being found anywhere in the Union. Favourable geological structure exists only in Cape Colony, and there only in a narrow strip at the southern edge of the Karroo. No petroleum prospecting has apparently been carried out in this district, but even taking the most hopeful view of the formation, the conditions are not favourable for large productions. The writer suggests that the area south of Aberdeen, near Jansenville, Saxony, and Klipplaat Station, should be examined, using a combination rotary and percussive drill with a steel derrick; a diamond drill is unsuitable. Though it is by no means certain that petroleum will be found, such a well, if successful, would open up a wide area, and, if unsuccessful, would set at rest all hopes of striking oil in the Union. The writer adds that certain areas in north-eastern Natal, which he was unable to visit, may perhaps furnish favourable geological structures.

As regards natural gas, it is stated that there are areas in the coal measures in the Transvaal and Natal where it can be struck in fair quantity. Supplies of gas under sufficient pressure to supply distant towns are improbable, but the gas may possibly be used locally at a profit.

None of the shales examined, with the exception of that at Kikvorschfontein, are comparable with the best Scotch shales, but the laboratory tests prove that very fair quantities of shale oil can be produced. The seams are unfortunately thin as a rule, which will greatly increase the cost of working. Against this it must be remembered that the demand for oils in South Africa is large, that present prices are very high, and that freight charges are high also. Thus a shale too thin to be worked at a profit in many countries might prove quite profitable in South Africa.

The writer suggests that the Union Government should assist persons desiring to start a shale-oil industry by forwarding for them 10-ton samples of shale to Scotland for a thorough commercial test. The Kiksvorschfontein, Moorfontein, Waaihoek and Hlatimbe-Umkomaas areas should all be considered in this connection, especially the last area, which lies within 100 miles of Durban, and because it seems probable that shale deposits may be found near the projected railway to Himeville.

In conclusion, it is stated that prospecting of the folded belt of the Karroo system for crude petroleum and natural gas is of less importance than the development of the shale industry. All the evidence to hand at present leads to the belief that an oil-shale industry has good prospects of proving successful, and no effort should be spared to ensure that a fair test is made of its possibilities.

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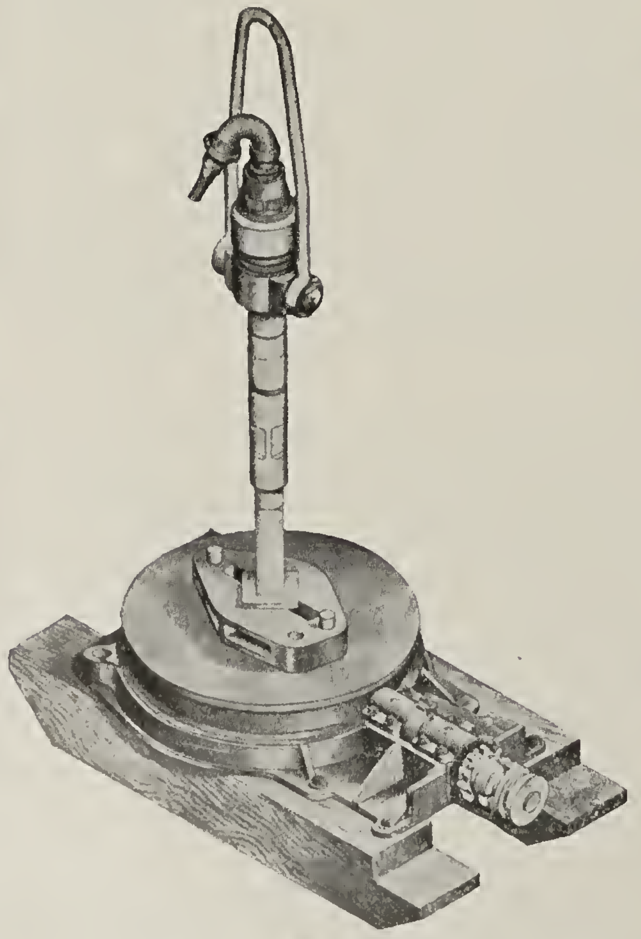

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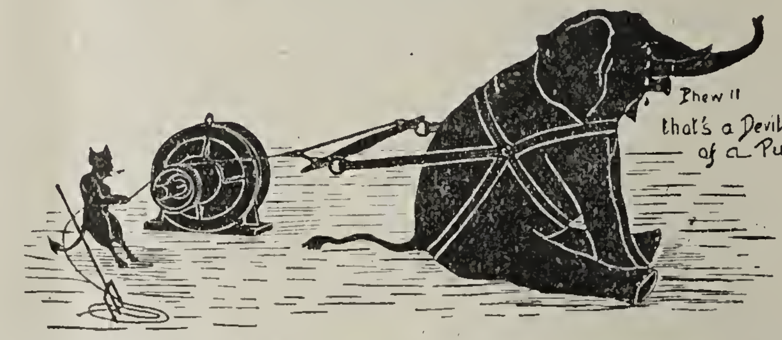
Phew !!
that's a Devil of a Pull

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ON
Messrs. COMPAYNE'S STAND
AT
THE WORLD'S OIL EXHIBITION,
EARL'S COURT, MARCH 21st to APRIL 4th.

(*Continued from page* 350.)

1½ in. or 3½ in. diameter, stretch or elongate under their own weight when suspended in a borehole, and the added weight of the bits and sinker bar materially increase the amount by maintaining the elastic stretch, and not relieving it by letting the whole weight rest on the bottom, not only is the legitimate stroke maintained, but the rods are not continually made to act like a concertina, thus they are relieved of any considerable fatigue, and do not become tired. This latter expression is more than a detail of small importance, in fact it is a question of life and death, for much of the plant used in drilling, more especially in cases wherein the plant is operating continuously for long periods, and although it is not generally known, I think I am right in stating that the fatigue curve for metals, human beings and animals is almost identical, and there is little doubt that many failures in drilling machines are largely due to the metal getting tired beyond its normal endurance.

The flush percussion has developed slowly, and is in many ways new to the oilfields operator, but "Fauck," "Trauzl," "Rapid," "Raki" systems have had a large measure of success in certain classes of deep work. In combination with core drilling apparatus the system promises to have a considerable future for the development of new fields, a small core hole being led in advance for 100 to 200 ft., and followed thereafter by percussion to enlarge the hole to the desired size. A percussion flush system has obvious mechanical advantages in difficult strata, and it is much easier to maintain a true and vertical hole.

The initial cost of the flush percussion system is on the whole considerably greater than that of the ordinary hydraulic Rotary outfit, but in certain fields the initial cost is not a matter of serious moment if the plant can be depended upon to rapidly effect and complete a deep boring.

Power.—Steam is still the wasteful favourite of the driller, and although electricity, gas, oil engines, have their votaries, the former is undoubtedly one of the causes of field fires and the latter has not quite arrived at a stage of flexibility which is essential for economic drilling. Probably no section of the varied requirements of oil field development offers greater scope for economy.

Labour.—When we come to consider labour past and present, we touch a matter which seriously affects every owner and oil operator, and one upon which every oil territory owner has more or less caustic views. Within a given zone that is well known, and wherein the features of the field are well understood, a class of driller is developed who, with certain appliances, will maintain a degree of precision and success; however, the large majority of such men are scarcely educated craftsmen and are usually wedded to the system employed, and moreover are prejudiced against any new ideas or improvements. The pick of the men remain, but as a result of successful achievement under known conditions, a number get drafted out into new fields, carrying their prejudice along with them, and receive for their services a wage which should surely tempt a higher educated and more generally knowledgeable class of man. It is true that a certain element of cunning is developed by human beings engaged in any particular craft, for example, in the untutored wandering plumber, tinsmith, knife-grinder, scissor-setter, etc., who was a common feature of rural life but a few years ago; but modern day conditions call for something more of brains as well as muscle, and until we encourage more skill and more education in our drilling staff, it will be impossible to utiliso the varied new metals and mechanical principles that are being greedily absorbed and adopted in other branches of engineering. To-day in our drilling methods brute force is employed to accomplish things that could be accomplished with two fingers and no physical effort; we pay high wages for a certain degree of experience, forgetting that we pay dearly therefor; it might be better to pay even higher or picked men and put them in charge of higher educated and a more mechanically skilful staff. When we consider that the wages we pay for even very mediocre drillers, and compare them with the wages paid to engineers in engine-rooms of great ships at sea and huge power stations on shore, we cannot but feel that in this question lies a factor which is of the utmost importance to us all. In fact it may be stated without fear of contradiction that there is a great opening for the young engineer in adopting the profession of a skilled driller. In thus concluding my short address with a matter which may perhaps give offence to some, I fully appreciate the splendid work accomplished by many drillers, tho world over, but in speaking as I have spoken on this question of labour, I havo in mind the British rather than a world-wide consideration, for on account of the present lack of oilfields in our own country we have no home training ground, but our capita is widely distributed in oil holdings the world over, and by systematically encouraging the best class of young engineers to adopt the profession of drillers, we may surely assist the application of improved methods and machinery to the credit of the profession as a whole.

At the conclusion of the lecture, the Chairman, in asking the meeting to pass a hearty vote of thanks to Mr. Wells, said he did not think the subject could have been touched upon in a more masterly manner by any person. Mr. Wells had had long experience with oilfield operations, and he was sure his interesting lecture would be appreciated.

◆

# The Oil Industry of Mexico.

**By Mr. R. P. BROUSSON.**

On Wednesday evening, before a large and very appreciative audience, Mr. R. P. Brousson (Director of the Anglo-Mexican Petroleum Products Co., Ltd.), delivered an instructive lecture upon "The Oil Industry of Mexico," Mr. John Purdy presiding.

The Chairman, in introducing the lecturer, expressed the hope that the large company present would find it of great interest, as showing the enormous developments which had of late years taken place in Mexico's petroleum industry.

Mr. Brousson then delivered his lecture which was illustrated by numerous limelight views. The lecturer said :—

Legend says that the Totonac Indians, one of the Aztec tribes, wandering along the shore of the Gulf of Mexico found patches of chapopote (a heavy asphaltic oil) washed up by the sea.

Later on the Spanish Crown made a grant of certain territories in New Spain (Mexico), including the oil springs thereon. This probably refers to San Jose de las Rusias in the present State of Tamaulipas.

In the summer of 1868, Dr. Autray, who, perhaps, is better known as the discoverer of Angostura Bitters, discovered the oil springs of Cugas (Furbero), near Papantla. He exploited the oil by making a tunnel into the side of the hill from which the oil exuded. He set up a still and supplied the local demand for illuminating oil.

In his excavations he came across several miniature idols buried in the asphalt, which indicated that it had been a place of pilgrimage or worship in very early times.

His business unfortunately did not prosper, the transportation of all material to the place of operations and the product after refining being too expensive to allow of a profitable enterprise. His friends in Mexico City withdrew their support and the business came to an end.

Between 1880 and 1883 two companies began to drill at Cerro Viejo and Chapopote, in tho Tuxpan district. Each company (one of which was backed by the *Boston Post*) succeeded in bringing in a producing well. These wells were situated 8 to 10 miles apart, and the deepest is said to be about 700 ft. They have continued to gently flow practically to the present day. Two stills were erected on one of the properties, and there is a vague report that some oil was refined and sold.

Between 1899 and 1902 the Mexican Petroleum and Liquid Fuel Company (English interest) drilled some 18,000 ft. of hole in the Tecoluta Valley, just to the south of Cugas (Furbero).

About the same time Messrs. Doheny and Canfield came from California and started operations at Ebano, some fifty miles to the west of Tampico, on the railway from Tampico to San Luis Potosi, and brought in some small wells.

In the winter 1902-1903 the Furbero group (the Oil Fields of Mexico Company) drilled their first well at Cugas (Furbero), which came in a flowing well, and in the same year the Pearson interest began drilling in the southern end of the State of Veracruz, near Jaltipan and Amesquite, in the canton (county) of Minatitlan.

In the same year (1902) the London Oil Trust and Mr. Johnson of New York each drilled a well at Chapopote and Cerro Viejo. The former was drilled to 600 ft., which showed no oil at the time, but on examination some four years later it was found oil had seeped into the well and was gasing slightly. By the latter a small intermittently flowing well was brought in at about 900 ft. Unfortunately, through lack of funds, the work on these properties was suspended.

Meanwhile, the Pearson interest was successful in bringing in a good field at San Cristobal, in the canton of Minatitlan, and to which I will refer again presently.

The Doheny interest moved their operations from Ebano to Cerro de las Pez (some 2 miles to the south), which is a volcanic neck. Geologists were of the opinion that it would be impossible to find a good field under such conditions, but time proved otherwise. Here they brought in their first large well on April 4th, 1904, which still continues to flow at the rate of from 300 to 1,000 barrels per day.

### The Geology of Mexican Oil.

In Northern Veracruz there is a coastal belt between the sea and the eastern Sierra Madre, on which we find recent deposits along the sea coast succeeded in turn by older and older Tertiaries, until the western flank of the Sierra Madre is reached, which is composed of Rudistes limestone.

The age of this limestone is more or less equivalent to that of our English chalk. This limestone, however, is not found at all in England, though it is found in the Mediterranean basin.

The oil-bearing bed is a limestone, lying either in the marls just above the main Rudistes limestone, or, as found in the best wells, the oil-bearing bed is the highest portion of the main limestone itself.

These beds are fortunately overlaid by a great thickness (2,000 to 3,000 ft.) of almost pure marl, and form an ideal impervious cover for the oil. These marls are poor in fossils, but near the top some foraminiferal limestones occur, which indicates that at least this upper part of the marls is of Tertiary age.

The limestone beds become more frequent and the fossils more abundant as we rise in the Tertiary beds.

Northern Veracruz has proved previous geological ideas regarding the detrimental relation of volcanic necks and dykes to the oil horizon to be not so prejudicial as previously supposed.

In fact in certain of the fields in Northern Veracruz the local concentration of the oil is due to the movement which took place when these necks and dykes were projected through the oil-bearing rocks.

Fears were expressed in the early drilling round these necks that the wells would strike the neck at a shallow depth. This has, in a number of cases, been disproved. The neck arising almost vertically, in fact, probably being of reduced area for some considerable depth, as is shown in the accompanying diagram.

The most recent discoveries have been apparently independent of necks or dykes. This does not entirely prove that they have had no influence on the accumulation of the oil, as there may be points at which the necks or dykes have never reached the surface.

There are numbers of necks and dykes in Northern Veracruz which have had no accumulating influence on the oil. Many of the oilfields may be independent of any such action.

### Description of the Fields.

Production only began on a large scale in Mexico in 1907, when she first figures in the world's statistics with 1,000,000 barrels.

In Northern Veracruz one may say that out of some 70 promising localities for oil only some 19 have been tested, and out of these at least 15 have proved to be commercially productive.

The whole production is at present coming from 12 fields, 6 of which are controlled by the Pearson interests, who produced about half the 23,000,000 barrels which was Mexico's production for the past year (1913).

Up to the present there has been some 550 wells drilled since the beginning of exploitation for oil in Mexico, of which 130 have been drilled during the past year. The above production cannot in any way be taken to indicate the capacity of those wells which were productive, as the output is limited to the carrying capacity of the pipelines, and in the cases of the Panuco and Topila fields, to the barging facilities on the Panuco river.

The present fields are exceptionally well situated in being mostly within 30 miles of the sea, which has had a very beneficial effect in their quick development.

### Statistics.

The following fields have been discovered in Northern Veracruz, and are at present in active exploitation:—Tanguijo, Potrero del Llano, Tierra Amarilla, San Marcos, Los Naranjos and Furbero, which are entirely controlled and operated by the Pearson and affiliated interests.

The Ebano, Chijol and Juan Cassina fields are operated by the Doheny group or Mexican Petroleum Company, Ltd., interests.

The three fields, Topila, Chila Salinas and Panuco, are being operated by some 45 companies.

The Alamo field, belonging to the Penn-Mex, will shortly be in active exploitation.

In Southern Veracruz, San Cristobal, Soledad, Ixhuatlan and Tecuanapa fields are being vigorously exploited by the Pearson interests.

There are some 186 oil companies registered in Mexico, but there are only some 50 actually working.

The capital of 28 of these companies amounts to £20,902,666 of which 25 are producing. I mention this figure to show the magnitude of the interests involved.

### Character of Oil.

The character of Mexican oil is certainly asphaltic, but the public have rather run away with the idea that nearly all the oil is such as has been found to the north of Tampico, which is certainly of a high specific gravity (·982) and high viscosity. Heating coils have to be used in the storage tanks, and it has been found that it cannot be economically pumped through pipelines, it being cheaper to barge or transport in tank wagons The Pearson interests have chiefly devoted themselves to regions further south, where the oil is distinctly better and can be economically pumped through pipelines.

The oil appears to become better and better as we go southward; at the southern end of the northern belt an oil is found having a specific gravity ·894 viscosity, 143 secs. Redwood at 100° F.

In the Isthmus of Tehuantepec, or southern belt, representative oils have the following qualities:—

(1) Specific gravity ·881, Viscosity 108 Redwood.
(2) ,, ·852, ,, 50 ,,
(3) ,, ·816, ,, 30 ,,
(4) ,, ·792, ,, — ,,

These oils contain large quantities of motor spirit and of high-grade illuminating oil; some of them are almost free from asphalt, which much facilitates the manufacture of a high-class lubricating oil.

In the State of San Luis Potosi the Pearson interests went in purely on geological structure and indications, and discovered very high-grade oil of specific gravity ·783, so that it may be said that this company and their allies have a very large production of what may be considered middle-grade crude Mexican oil, together with practically all the fields producing the lighter class of oils.

### Pipelines and Railways.

There are about 425 miles of pipeline laid down in Mexico, of which the greater part is 8-in. diameter; there are some 51 miles more under construction.

There are 86 miles of light railway in use in connection with the oilfields, and there are 35 miles under construction; in addition, some 54 miles are projected.

### Refineries.

The Waters Pierce Oil Company is one of the most important companies operating in Mexico, and have a refinery at Tampico.

The Doheny and Californian interests have an asphalt plant at Ebano, and are constructing a topping plant at Tampico.

Most of the other companies operating in Mexico are producing companies only, with the exception of the Mexican Eagle Oil Company, to which detailed reference will now be made.

**The Mexican Eagle Oil Company.**

In 1902 the Pearson interests, as already stated, began their first search for oil in Southern Veracruz on the Isthmus of Tehuantepec, and acquired a large number of leases and blocks of land, after which they began drilling and were successful in five fields, so much so that a large refinery was constructed at Minatitlan capable of dealing with some 15,000 to 25,000 barrels of oil daily. The first unit was operated in April, 1908.

Further extensive leases were secured, and after combining forces with the Pennsylvania Oil Company, active drilling operations were begun in Northern Veracruz in 1906. The discovery well, San Diego No. 3, was brought in in the spring of 1908, and on July 4th the never-to-be-forgotten well "Dos Bocas" came in.

The well was being drilled with a rotary rig, and after going through a very hard marl formation the bit went into shale about 3 ft. (at 1,824 ft.).

A heavy gas pressure developed, and in a few minutes the internal pressure manifested its force by bursting the wire-wrapped hose connecting the slush pumps with the drill stem. The oil began to come fast, probably at the rate of 10,000 to 12,000 barrels. Efforts to get the 4-in. pipe out were futile. In 20 minutes the well was completely beyond control.

Fissures began to appear in the ground, gas and oil coming through them. One opened directly under the boiler and ash pile, and although it had been pretty thoroughly drenched with water, started burning immediately, igniting the well, which by this time was throwing a solid 8-in. stream of oil far above he derrick.

The heavy English drill pipe was hurled out of the well in sections, some of it going 150 ft. into the air. Later the 8-in. casing, which was anchored at the top but not set at the bottom, became loosened and fell into the hole, thus removing all chance of controlling the well.

It was impossible to go within 300 ft. of the well as the heat was so great; the flames were estimated to be about 1,000 to ,500 ft. high and 50 to 60 ft. in diameter. The fire was plainly visible in Tampico, and out at sea was often taken for the light rom the Tampico Lighthouse. On August 30th, 58 days later, he well was reported to be extinguished, probably due to the remendous caving which was taking place, and which momentarily choked it.

In January, 1910, the Tanguijo field was proved by a shallow well, which flowed an oil of specific gravity ·92 from a 13-in. casing.

Within six days the Potrero del Llano No. 1 well was brought n at a depth of 1,933 ft., which opened up another new field ome 30 or 40 miles from the Tanguijo field.

On December 27th, 1910, the great Potrero del Llano No. 4, probably the largest well in the world that has ever been got under ontrol, came in at a depth of 1,911 ft., and ran wild for several weeks. The oil spread over some acres and burned in a number f pools, causing much vigilance and trouble in keeping the ames from the well.

Work was at once started on a mammoth earthen ground ank, and two 8-in. lead lines, connected at the casing head with 6-in. and 8-in. lines, were laid nearly to the reservoir. This immense reservoir covers 45 acres, and is more than 30 ft. deep in the middle.

The well was flowing through the two 8-in. lines under 600 lbs. ressure, and 300 lbs. pressure was held in by the gate valve.

It was estimated that the daily flow was 125,000 barrels, and without question must have been over 100,000 barrels of oil. On March 27th this well had been flowing 90 days, and in that me more than 8,000,000 barrels of clean oil had flowed from it, o water or sand appearing.

It is at present shut down to about 40,000 barrels a day, which the capacity of the pipelines which take away the oil.

In December of 1911 another new field was discovered in Tierra Amarilla, 1½ miles from Potrero.

On July 11th, 1912, Alazon No. 4 came in at 2,000 ft. This well was never completely drilled in, but in spite of this it produces some 25,000 barrels per day; it would probably give as much as Potrero del Llano if it were drilled a few feet deeper.

Later in the same year some good wells were brought in in the San Marcos field.

In October of last year (1913) a most promising field, 30 or 40 miles away from Potrero, was found when Los Naranjos No. 1 came in, and other very highly petrolific wells have been drilled since that date in this field.

The production of oil, as everyone here knows, is, however, only the first link in a long chain of commercial operations.

The Mexican Eagle Oil Company has over 200 miles of pipeline (mostly of 8-in. capacity), miles of narrow-gauge railway, and steel storage tanks aggregating over 2,000,000 barrels in Mexico. The large refinery at Minatitlan is capable of turning 1,400 tons of crude petroleum daily into a complete range of high-grade products—motor spirit, burning oils, lubricants, fuel oil, paraffin wax, and asphalt for roads.

Another refinery of even larger capacity is under construction at Tampico. This refinery, of which the first half should be ready in June this year, will have a total throughput capacity of about 4,000 tons of petroleum per day.

An interesting equipment is that of the sea-loading lines at Tuxpan, where the water inside the bar is too shallow to allow the big Mexican Eagle steamer to come alongside and load. Accordingly pipelines have been laid on the bed of the sea reaching out to a loading terminal about a mile and a half from the shore. Here the pipelines are connected by flexible hose to the steamers laying at ocean moorings, and three or four vessels can be loaded at once from the storage tanks and pumping station on shore.

During 1913 more than 200 tank steamers have been loaded at Tuxpan in this way, and on the average each has been loaded and despatched within 2½ days.

The pumping and sea-line facilities enable a ship to be loaded at the rate of 10,000 tons per 24 hours.

The domestic trade of the Mexican Eagle Oil Company is in a very strong position to-day, supplying several of the Mexican railways and other large industries with petroleum product through over 160 depots. The refined oil consumption of Mexico is well over 2,000 barrels per day. Naturally the railways of Mexico use fuel oil, and in one instance—which may be taken as typical—the saving derived from its adoption in the place of coal is no less than 40 per cent.

A company with such an output as the Mexican Eagle must, however, be prepared to meet the demands of the world's markets for oil in addition to developing its domestic trade, and the question of transport immediately arose. Two years ago a company was formed—the Eagle Oil Transport Company—which placed orders for 20 large tank steamers, of which 10 are giant vessels of over 15,500 tons deadweight capacity. Those of my audience who have seen the "San Fraterno" in the cinematograph section of this Exhibition will have gathered something of the immense size of these vessels It will suffice to mention that they burn Mexican oil fuel under their boilers, and have cargo pumps capable of handling 1,200 tons (9,000 barrels) per hour.

It will give some idea of the size of this fleet to remark that, placed end to end, the fleet would measure over 1¾ miles, and has a total carrying capacity of a quarter of a million tons per voyage. The chairman of the company—Lord Cowdray—remarked at a recent meeting that "it is only a question of time—and it will not be a long time—before oil will be the fuel used by the great passenger ships, as it is now extensively used by most of the navies of the world."

Oil-tank steamers have undoubtedly a fine and assured future in that they are fluid and mobile, and not dependent upon the vicissitudes of any particular oilfield.

The Eagle Oil Transport Company have created a record not only in the size of their ships but in the celerity with which they have been constructed. Only a month ago there were two mammoth tankers of over 15,000 tons on trials the same day, and two further vessels of 9,000 tons were launched on the next two days, making a total of 50,000 tons in three days for one company.

Probably nothing in the last year or two has so contributed to make fuel oil a practical proposition for big steamship lines as the accession of this great fleet to the world's oil transport facilities.

The immediate effect is reflected in the import figures of fuel oil for the United Kingdom. In the first nine months of 1913 the Anglo-Mexican Petroleum Products Company imported into this country 12,830,000 gallons of fuel oil, being more than the total from all other producing sources combined.

The Anglo-Mexican also distribute the products of the Mexican Eagle Company in all the markets of the world except Mexico.

Fuel oil has been demonstrated to give as much effective power per lb. as 1½ lbs. best steam coal for marine boilers, and as much as twice the amount of work than can be derived from coal for locomotives and land plants. But it is with industrial furnaces that oil in this country gets its best chance, the ratio of work done being 3 or even 4 to 1 in favour of oil as against coal or coke—weight for weight. These advantages are in each case supplemented by other important considerations which vitally affect the cost of working, such as better control and higher temperatures, saving in labour and space, ashes, clinker, etc.

An important product of Mexican oilfields is bitumen or asphalt. Mexican Eagle bitumen is found to possess just those qualities of adhesiveness and ductility which are requisite for the best road construction, and the company's products, "Mexphalte" and "Fluxphalte," are becoming widely and favourably known for this purpose both in this country and abroad. It will not be out of place to show one or two pictures of the important products of the Mexican fields as applied to roads.

It is a remarkable fact that Mexican oil has been shipped to two oil-producing countries, the United States and Russia, and to which Mexico stands third in output. It serves to suggest that at no distant date Mexico may contest with these countries for the distinction of second place in the list of the world's oil-producing territories.

The production of Mexican oil has arisen in six years from 1,000,000 to 23,000,000 barrels, and it is interesting to note that the rate of increase has not been surpassed by any of the great oil-producing States of the United States in their early stages.

This rapid development has meant a huge amount of work on the part of the pioneer companies, and when it is remembered that this work in Mexico has so far been confined to the State of Veracruz, and bearing in mind the prolific nature of the fields that have been proved, and the further fact that it is known that other States of the Mexican Republic are petroliferous, it is no exaggeration to assert that the oil resources of Mexico are but at the beginning of their ultimate prosperity.

In conclusion I wish to express my indebtedness to my two colleagues, Messrs. P. C. A. Stewart and E. W. Delacour, for their kind assistance in the preparation of this lecture.

Dr. P. Dvorkovitz, in moving a hearty vote of thanks to Mr. Brousson, said they had all listened with a great amount of interest to the lecture, which gave a graphic description of the development of the petroleum industry in Mexico. He was sure he was not exaggerating the fact when he said that there was no place in the world where the petroleum industry had developed to such an enormous extent in such a short space of time. Not only had Lord Cowdray and his associates energetically developed the oil lands but they had built pipelines, refineries, and a fleet of ocean tankers to carry Mexican products to the markets of the world, and all in the short space of about seven years. He believed the great work which Lord Cowdray had carried out in regard to the development of the Mexican petroleum industry would always stand out as one of the most remarkable chapters in the oil industry of the world. Not only were Mexican petroleum products to-day upon the European markets, but they were even going into the United States and Russia, themselves large oil-producing countries, and at the present time negotiations were proceeding as a result of which large quantities of Mexican oil fuel would in future be used by the Russian railways. He thought all Britishers should be proud of the fact that one of their number had had a great spirit of enterprise to unearth the almost unlimited oil resources of Mexico, and, having done this, should, in the face of competition, introduce the refined products throughout the markets of the world.

Mr. John Thom seconded the vote, which was carried with acclamation, the lecturer briefly replying.

A hearty vote of thanks was also passed to Mr. Purdy, on the motion of Mr. Stackard, for his duties in the chair.

# Liquid Fuel from England's Point of View.

**By Mr. W. H. BOOTH, F.G.S.**

On Thursday evening Mr. W. H. Booth delivered a popular lecture upon the subject of "Liquid Fuel from England's Point of View," the chair being taken by Mr. J. D. Henry.

In introducing the lecturer, Mr. Henry took advantage of the opportunity of referring to the Exhibition, in connection with which that lecture was being given. He said that six or eight years ago the present organiser—Mr. G. D. Smith—approached him in order to get some idea as to the feasibility of running such an Exhibition as was that evening in progress, and though at that now distant date there was no doubt such an

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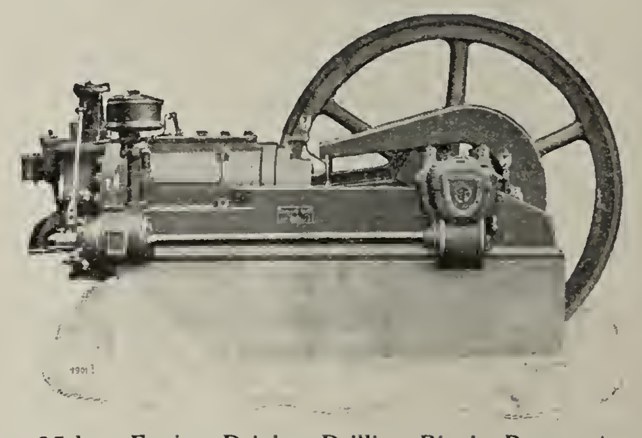

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enterprise was premature, the speaker was convinced that the moment was now ripe to show to the world at arge, through exhibitions of a serious character such as the present, the great advancement which the petroleum industry was making the world over, and how largely its refined products entered into the commercial, industrial and domestic life of to-day. There was no doubt that Mr. Smith had undertaken a most formidable and a most speculative task, yet he, Mr. Henry, thought he needed not to be discouraged with the comparative smallness of that Exhibition. The time was ripe for such exhibitions, and with perseverance Mr. G. D. Smith would secure a position n association with the oil industry of which he might be well proud.

Proceeding, Mr. Henry said that upon the subject of iquid fuel, whatever might be the extraordinary re-ourcefulness and the extraordinary character of the actions of the head of the Navy in this country, it had o be said to his credit that he (Mr. Churchill) never under-estimated nor under-valued the use of liquid uel in connection with the Navy. If they wanted the Navy of the country to be in a fighting condition and, f necessary, pursue an adversary to the end of the world hen of necessity it must have liquid fuel, which many f them had advocated for so long. To day he compared a coal battleship, so far as fighting abilities were oncerned, to be much in the same position as an old bull-dog with bad teeth and shaky legs. The British Empire, however, was hopelessly behind in the matter of oil production, and it was a thousand pities they had not great oilfields such as they saw in America and Russia. To him it had been a source of regret as a onstant supporter of Colonial oil to find that they as an Empire were so far behind other countries in that espect. However, he had reason to believe the future was full of hope.

Mr. Henry then called upon the lecturer for his ddress.

Mr. Booth in the course of his lecture said the question of quid fuel for the British Navy was a very broad one, and on he face of it there appeared little wisdom in substituting for oal, of which they possessed great stores, a liquid of which they roduced so little within their own borders. One fact, however, ompletely overturned that argument. Liquid fuel possessed reater steam-raising powers than coal; it was capable of being owed in parts of a ship unsuited for coal; it was mechanically onveyable to the point of use from the most inaccessible bunkers, nd it was workable almost without labour. Coal, on the other and, was laboriously conveyed to the firing floor; it was fficult to store continuously with great efficiency, and the long nd arduous duties in a battleship's stokehold during a strenuous ar period would cripple the energies of the men, and consequently would put a ship virtually out of action. Liquid fuel as free of all those difficulties, and it was satisfactory that the avy had learned the lesson enforced by Admiral May, when, ith men exhausted by long hours of coal-firing, he found imself helpless and almost powerless, and only then changed ver to liquid fuel, and, in theory, ravaged the south and east oasts of England, as they could have been actually ravaged y an enemy in similar circumstances. Even that advantage ight be thrown overboard did they possess a monopoly of quid fuel. But they did not. They had next to none, and roduced a few gallons per year only, depending for their supply n some foreigner, who might be under the domination of the nemy, for all their possible or likely enemies had liquid fuel at heir command, and were already using it. Without it Great ritain would be at a disadvantage. Great Britain must herefore adopt liquid fuel; build new ships to use it; adapt ld ships for burning it; take measures to secure an unbroken and sufficient supply, and if those be conceded, there remained to consider the systems of applying it, and the means to be taken to secure and to safeguard the supply. So far liquid fuel had been used alone, or in combination with coal.

For a coal-producing country the combined system offered advantages, though it demanded a more or less full number of stokers. Liquid fuel was so expensive at present that its use was costly compared with coal, and coal might therefore be retained with economy in times of peace.

Should the supply of liquid fuel be short at any time, a ship could fall back upon coal, reserving its oil fuel for emergency. So long as there was a small fire of coal upon the grates, oil could be at once burned at maximum rates, and the ship at once placed at its state of maximum efficiency, subject, of course, to the usual precaution as to a not too rapid heating up of its boilers, though by means of forced water circulation steam could now be safely raised with great rapidity. Given a certain assured supply of liquid fuel, the need for the combined system became less and less.

Great Britain possessed the potentialities of an enormous output of liquid fuel. The distillation of coal produced a large amount of tar, tar oils, etc., such as creosote, green and other oils. The distillation of coal at high temperature was destructive of the more valualbe constituents. Hence the strenuous endeavours to introduce low temperature distillation processes, by which it was claimed that as much as one-seventh of the weight of the coal was converted into liquid. Of that amount about one-tenth of the weight of the coal, or, say, 22 gallons, was in the form of liquid fuel. Thus by carbonising 12,000,000 tons of coal at a low temperature, the Navy could be supplied with 1,000,000 tons of fuel. That coal oil, produced in Britain from a plentiful British product, was as easily usable as petroleum oil of fuel-oil quality. Already gas tar had been employed for boiler-firing on land. It sprayed well and burned well, and with good efficiency. The Great Eastern Railway had used tar from the oil-gas plant; afterwards they used creosote oil, and later utilised furnace oil with great success.

That liquid fuel would be a permanent institution could not be doubted. The Navy could not afford to neglect anything which would maintain the highest possible efficiency. There was, it cannot be denied, a certain risk that the supply of oil from over-seas might be more or less jeopardised in time of war. The Mediterranean supply might be cut off at its sources, or curtailed, or it might be captured *en route*. From the Far East the route must be either by way of the same sea or round the Cape. True, there was Panama, a route also exposed to war risks on the one hand, and on the other to physical stoppage, in the event of a landslide. Mexico as a source of oil might any day fail from internal strife. Great Britain, therefore, was face to face with the risk of failure of the imported fuel for her Navy at the most critical moment. Against that risk there were two obvious courses to pursue. The store of liquid fuel, always maintained in the country should exceed the demand by an amount sufficient to supply all needs during the continuance of a war.

Mr. Stackard, in proposing a vote of thanks to the lecturer, expressed regret that Mr. Booth had not touched upon the industrial aspect of oil fuel—a subject which was of the greatest importance.

Mr. S. H. North, in seconding, said that in this country they had mineral deposits which could be drawn upon to a very great extent for oil-fuel supplies, while, with the adoption of newer methods, the yield of oil from the Scottish shales could be very substantially increased.

The lecturer briefly replied.

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## NOTICE TO OIL EXHIBITORS.

We regret that owing to pressure upon our space this week we have unfortunately had to hold over several descriptions of Exhibition stands, but these, illustrated in a number of cases, will appear in our next issue.

# MISCELLANEA.

## NEXT WEEK'S OIL EXHIBITION LECTURES.

The following lectures have been arranged for next week at the World's Oil Exhibition, each commencing at 7.30 p.m. :—

Monday: Mr. Booth on "Drilling Methods."

Tuesday: Mr. Chambers on "Oilfield Management."

Wednesday: Mr. S. Lehmann on "Oil and Sound Finance."

Thursday: Mr. J. T. Smith, "The Oil Industry."

Friday: Mr. C. F. Stackard, "Oil Fuel for Industrial Purposes."

The two last-mentioned lectures will be illustrated by limelight views.

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## GALICIAN PETROLEUM PRODUCTION DURING FEBRUARY.

The total production of petroleum in the Boryslaw-Tustanowice district during February amounted to 69,627 tons, of which 17,041 tons were obtained on the Boryslaw oilfields and 52,586 tons on the Tustanowice oilfields.

◆

## CONSTANTINE OILFIELDS, LTD.

### Messrs. S. Pearson & Son's Contract Confirmed.

At an extraordinary general meeting of the shareholders of the Constantine Oilfields, Ltd., held on Tuesday at the Institute of Chartered Accountants, E.C., the chairman of the company (Mr. A. F. Vigor) presiding, it was agreed that the arrangement made with the eminent firm of Messrs. S. Pearson & Son, Ltd., for taking over and operating the company's properties in Algeria was confirmed. Under the agreement Messrs. Pearson & Son take over the properties and work them both for the shale and liquid oil, and pay a progressive royalty, commencing at 5 per cent. and rising to 8 per cent., on the market value of all crude won by them.

◆

## PETROLEUM IMPORTS INTO DENMARK DURING 1913.

The imports of petroleum into Denmark during 1913 amounted to 180,200 tons of kerosene and 44,900 tons of lubricating oil, as against 74,200 tons of kerosene and 35,600 tons of lubricating oil imported during 1912. The value of the kerosene imported during 1913 amounted to 6,412,000 kronen, as against 5,676,000 kronen in 1912.

The imports of the above two products as well as those of benzine, liquid fuel, gas oil, etc., have considerably increased during the past two years, and have practically doubled. The prices in Denmark, just as in all other countries, have during the same period considerably increased, the price of benzine having increased by 60 per cent.

## A £1,100,000 NEW COMPANY.

The North Caspian Oil Corporation, Ltd., is the title of a company registered during the present week with a capital of £1,100,000 to acquire and exploit 580 plots in the Ural-Caspian oil district. Full details will be announced next week.

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## A WELL-KNOWN RUSSIAN OIL MAN IN LONDON.

Mr. Sadik B. Gadjinsky, of the Gadjinsky-Tcheleken Oil Company, Limited, is now in London for the purpose of arranging business in connection with the Tcheleken, Baku, and other Russian oilfields.

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## PETROLEUM IMPORTS INTO NORWAY DURING 1913.

The imports of petroleum products into Norway during 1913 amounted to 79,281 tons of kerosene, 992 tons of benzine, and 7,577 tons of lubricating oils.

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## IMPORTS OF KEROSENE INTO HOLLAND DURING 1913.

The imports of kerosene into Holland during 1913 amounted to 17,009 tons, as against 16,679 tons imported during 1912. The imports of lubricating oils amounted to 23,750 tons, as against 17,028 tons imported during the preceding year.

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## THE AUSTRIAN PETROLEUM CARTEL.

We have already informed our readers that recently the negotiations for the formation of an Austrian petroleum cartel have been renewed on the initiative of Mr. Rosenhek. Notwithstanding the fact that these new negotiations recommenced some months ago, they have not yet led to any positive results. As is well known, the last cartel was broken up owing to differences arising between various enterprises. At present the refiners who possess large quantities of crude oil in stock are of the opinion that the small refiners who have no such stocks at hand will give way, and so the cartel will be more easily formed. The intention of the promoters of the new cartel was to bind the refiners to it for a number of years, but owing to the resistance of an Hungarian group and of one of the Galician refiners, this desire has been withdrawn, and a new plan suggested to create an inland contingent and a central bureau for sales. On the basis of this new proposal the negotiations are still continuing. The question of export has not yet been included in these negotiations.

There is scarcely any hope that these negotiations will end favourably in view of the still prevailing great differences among individual refiners, and also in view of the fact that in establishing inland contingents the Vacuum Oil Company will have to be considered.

## HE ROUMANIAN PETROLEUM REFINING INDUSTRY.

### Details of Output during 1913.

THE total quantity of crude oil treated in the Rouma-ian refineries during 1913 amounted to 1,787,245 tons. he following table shows the quantities of crude oil eated in the principal refineries :—

| | Tons. | Per cent. |
|---|---|---|
| Steaua-Romana ... ... | 470,115 ... | 26·2 |
| Astra-Romana ... ... | 363,121 ... | 20·3 |
| Romana-Americana ... | 301,596 ... | 16·9 |
| Vega ... ... ... | 169,182 ... | 9·5 |
| Aquila Franco-Romana... | 131,820 ... | 7·4 |
| Orion ... ... ... | 95,041 ... | 5·3 |
| Colombia... ... ... | 75,018 ... | 4·3 |
| Roumanian Consolidated Oilfields, Ltd. ... | 43,305 ... | 2·4 |
| Standard ... ... .. | 38,994 ... | 2·2 |
| | 1,688,192 | 94·5 |

The above ten large refineries have thus treated gether 94·5 per cent. of the total quantity treated in l the refineries, the remaining 5·5 per cent. having een treated in 49 small refineries.

Out of the 1,787,245 tons of crude oil treated in the fineries, there were obtained 1,757,244 tons of various oducts, including :—

| | Tons. |
|---|---|
| Benzine ... ... ... ... | 422,019 |
| Kerosene ... ... ... ... | 380,074 |
| Lubricating Oil ... ... ... | 48,416 |
| Residuals ... ... ... ... | 906,735 |

The stocks at the end of the year in the refineries d ports totalled 291,976 tons. The stocks of the rious products are shown in the following table :—

| | In the Refineries. | In the Ports. |
|---|---|---|
| Benzine... ... ... | 47,928 ... | 18,817 |
| Kerosene ... ... | 111,156 ... | 34,510 |
| Lubricating Oil ... | 15,758 ... | 1,590 |
| Residuals ... ... | 51,470 ... | 10,947 |
| | 226,312 | 65,864 |

◆

## PETROLEUM ON THE UCHTA.

IT is two years since the Mining Department carried exploration work in the Uchta district, in determin-g the quantity and quality of the oil. By means of ring, there were discovered two petroliferous strata the clayish slates and in the quartz sandstones. A mmercial petroleum has been established only from the second stratum, that embedded in the quartz sandstones, the upper floor of which contains petroleum, while the lower only salty waters. The average productivity of the Uchta wells is estimated at about 35–50 poods of oil a day.

Until the present time there have been obtained from the wells petroleum of two kinds, viz., the central part of the area has yielded heavy oil of specific gravity 0·920, perfectly black in colour and containing a large percentage of sulphur; the other oil obtained is considerably lighter, viz., 0·876, and without sulphur. This latter is the prevailing type of petroleum in the Uchta district. The depth of the productive wells is between 560 and 700 ft. At present the Russian Nafta Society is working in the district, and is carrying on boring works on a plot situated on the river Tchuti. On five other plots situated on the same river and six plots situated on the river Iarega, the society is also carrying on preparatory work.

The speed in carrying out the work is considerably retarded by the impossibility of bringing into the Uchta district necessary machinery and instruments, as the ways of communication with the region are very bad. During four months in the year communication with the outer world is entirely cut off, so that the workmen are not only left without necessary machinery, instruments, etc., but there is no post. A demand has been addressed to the central administration of posts and telegraphs for erecting a cable line in the district, but until now the demand has not been satisfied. The country roads are also very bad, and all this makes the exploration work in the district exceedingly difficult.

◆

## EXPORTS OF PETROLEUM PRODUCTS FROM BAKU DURING 1913.

### A Slight Increase.

THE total quantity of petroleum products exported from Baku during 1913 amounted to 369,242,806 poods, as against 368,351,628 poods exported during 1912. The following table shows the quantities of various products exported by rail, on the Caspian Sea, and by road :—

| | | Exported by | |
|---|---|---|---|
| | Rail. Poods. | Caspian Sea. Poods. | Road. Poods. |
| Kerosene ... ... | 28,518,477 | 53,262,039 | 1,275,990 |
| Lubricating oil ... | 12,711,638 | 6,019,160 | 293,510 |
| Solar oil (Light) ... | 452,092 | 1,705,801 | 1,402 |
| ,, (Heavy) ... | 2,973,342 | 1,484,983 | 11,609 |
| Residuals ... ... | 12,150,520 | 187,03 ,146 | 861,010 |
| Crude oil ... ... | 9,965,598 | 46,721,130 | 407,679 |
| Benzine ... ... | 3,288,638 | 40,964 | 62,078 |
| Totals ... ... | 70,060,305 | 296,269,223 | 2,913,278 |

## DETAILS OF BAKU PRODUCTION DURING DECEMBER.

THE following are the details of the production of crude oil on the Baku oilfields during December, as published the latest issue of the *Neftannoie Dielo* :—

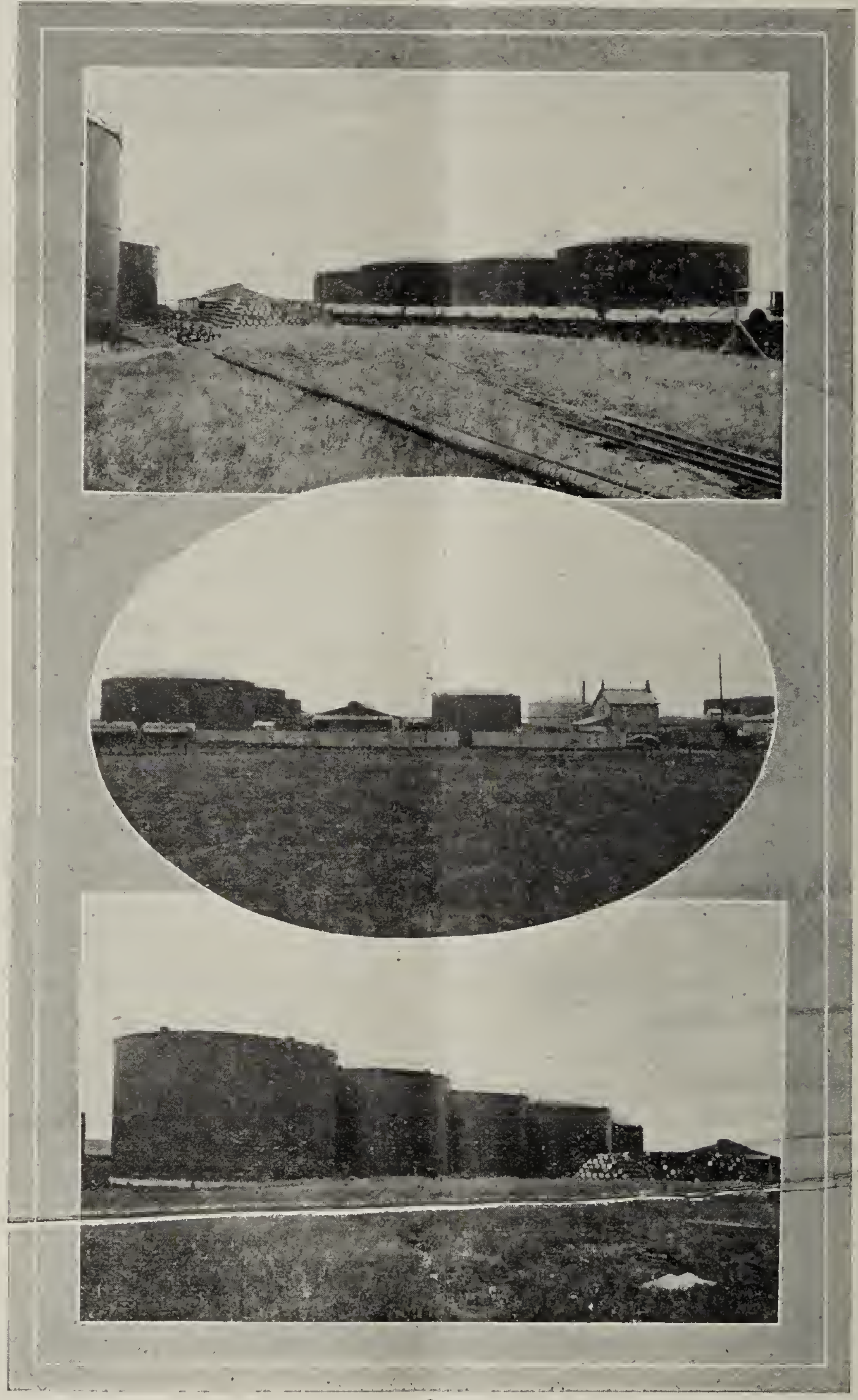
| | Number of Wells in exploitation. | Production (in poods). | | | | Average per Well per Day. |
|---|---|---|---|---|---|---|
| | | By Baling. | By Spouters. | Casual. | Total. | |
| Balakhany ... ... ... ... ... ... | 940 | 5,636,044 | — | 258,762 | 5,894,806 | 190 |
| Saboontchi ... .. ... ... ... ... | 1,305 | 14.205,663 | — | 117,107 | 15,322,770 | 367 |
| Ramany ... ... ... ... ... .. | 292 | 5.150.251 | — | 45.150 | 5,195,401 | 592 |
| Bibi-Eybat ... ... ... ... ... ... | 340 | 7,179,457 | 2,379,078 | 7.601 | 9,566,136 | 972 |
| Total ... ... ... ... ... | 2,877 | 32,171,415 | 2,379.078 | 428,620 | 34,979.113 | 398 |
| Total for December, 1912 ... ... | 2,640 | 33,893,847 | 7,866,154 | 389.780 | 42,149,781 | 537 |

# Anglo-Mexican Co.'s Authoritative Book on Mexican Fuel Oil.

As we briefly announced in the last issue of the Review, the Anglo-Mexican Petroleum Products Company, Ltd., have just published an exceptionally interesting book entitled "Mexican Fuel Oil," which ranks as the most comprehensive publication we have yet seen upon this admittedly important subject.

The book, which is exceedingly well got up and profusely illustrated, deals with the whole question of oil fuel in eight chapters, whose respective headings are (I.) Mexican Fuel Oil; (II.) General Advantages of Fuel Oil; (III.) Burners and Systems; (IV.) Fuel Oil and the Navy; (V.) Oil and the Mercantile Marine; (VI.) Fuel Oil for Railways; (VII.) Oil Fuel for Land Steam Plants; and (VIII.) Oil Furnaces; each chapter in its turn treating all the various aspects of the special subject under separate headings.

Great credit is due to the authors for having treated the subject in its widest possible manner; for though the book is primarily issued in the interests of advancing the already great popularity of Mexican fuel oil, the varying phases are viewed from what may well be termed an independent standpoint. Nevertheless, it follows that inasmuch as there is no oil-producing country in the world so capable of satisfying the major portion of the enormous demand which will exist in the future for oil fuel as is Mexico, the subject of oil as fuel becomes at once inseparably associated with the Mexican Republic.



The Company's Bulk Storages at Manchester.

It will not be out of place, therefore, in the face of recent developments in the use of Mexican fuel oil, if we here publish an approximate analysis of the fuel, which, taken from the book, is as under:—

| | |
|---|---|
| Carbon | 83·52 per cent. |
| Hydrogen | 11·68 ,, |
| Sulphur | 3·27 ,, |
| Ash | 0·16 ,, |
| Undetermined matter (presumably oxygen and nitrogen) | 1·37 ,, |
| Total | 100·00 |
| Specific gravity at 60° F. . . about | ·950 |
| Flash point . . above | 150° F. |
| Viscosity at 100° F. (Redwood No. 1) | 1,500 seconds |
| Calorific value— | |
| Per lb. | 18,900 B.T.U.'s |
| Per kilogram | 10,500 calories |

Of the general advantages of oil fuel, it is late in the day to speak, though necessarily in a serious work like the one under review this aspect of the subject is treated very fully, as are all the other phases of the subject. It is well, however, to here point out that numerous tests have been made under varied conditions with Mexican oil fuel, and without exception these have been eminently successful, as also have the subsequent applications of the fuel for power purposes on land and sea.

What will no doubt be of more interest to our readers is a brief reference to the organisation which has been created for the purpose of receiving and distributing in this country almost unlimited supplies of Mexican oil fuel. The Anglo-Mexican Petroleum Products Company, Ltd., who, as is well known, are the distributors for the Mexican Eagle Company (who are the producing end of the business), have, with their usual foresight, laid themselves out to cater upon a very large scale for any demand which may be experienced, and to this end large storage installations have been built at different advantageous parts of the United Kingdom, and, as a matter of fact, Mexican oil for bunkering purposes can be taken ex storage installations at the principal ports in the Kingdom. The storages at Manchester alone, the illustrations of which we reproduce here from the book, have a capacity of over 31,000 tons, and rank as the largest privately owned fuel oil depot on the west coast of England. Deliveries for inland requirements are made either by rail tank cars and road wagons, or by barges to the consumers' own works, and at the present time the Anglo-Mexican Petroleum Products Company is in a position to quote for large forward contracts.

But this by the way. If space permitted we should have availed ourselves of the opportunity of quoting largely from the new publication: we will content ourselves by expressing the hope that in a short time the publishers will see their way to make the book accessible to all interested in the subject of Mexican fuel oil by publishing a cheap edition, a world-wide sale for which is assured.

◆

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# BENZINE FROM NATURAL GAS.

Specially translated from the "Neftannoie Dielo."

THE petroliferous deposits in Galicia are gradually eing exhausted, and the Galician petroleum industry, hich until recently occupied one of the first places in e world's petroleum production, is gradually losing s importance, while at the same time prices of crude il and products are rising. As a natural consequence, ecialists are engaged in finding out means of nproving this position.

Among other things, the natural gas, of which illions of cubic metres escape from boring wells, has ommenced to attract close attention. Hitherto petro-um gas in Galicia has only been used for lighting and eating purposes. No attention has been paid to the uestion of utilising the comparatively large percentage f benzine vapour which it contains. Some methods f compressing this gas were patented, but the high ost of their practical application and the small yield f benzine fractions obtained prevented their having y commercial use.

The composition of natural gas from Galician petro-um wells is simple, as can be seen from the following ble of gas obtained from Tustanowice wells :—

| | Per cent. | Per cent. | Per cent. | Per cent. |
|---|---|---|---|---|
| 1. $C_nH_{2n}$ ... ... | 8·7 | 9·5 | 8·9 | 6·9 |
| 2. Oxygen ... ... | 1·0 | 0·8 | 2·1 | 0·9 |
| 3. $CH_4 2 (C_nH_{2n} + {}_2)$.. | 86·5 | 86·7 | 81·1 | 88·8 |
| 4. Nitrogen ... ... | 3·8 | 3·0 | 7·9 | 3·4 |
| Total ... ... | 100·0 | 100·0 | 100 0 | 100·0 |
| 5. Air... ... ... | 5 | 4 | 10 | 4 |

The large quantity of benzine vapours entering into s composition are not shown separately, but are simply ncluded into the groups $CH_4$ and $C_nH_{2n}$. It is well nown that natural gas readily dissolves in petroleum actions and petroleum water, and that in petroleum deposits it is stored under very considerable pressure, and when escaping from the wells it therefore possesses enormous velocity, and naturally carries away with it a large percentage of light portions of petroleum.

The main characteristics of the Tustanowice petroleum gas as used under the boilers of the Drohobitz State Refinery are shown in the following table :—

| GAS. | | | | COMBUSTION PRODUCTS. | | | |
|---|---|---|---|---|---|---|---|
| Specific Gravity. | Calorific Value. | Percentage of Oxygen. | Approximate Percentage of Air. | Boilers. | Percentage of Carbon Dioxide. | Percentage of Oxyg·n. | Approximate Percentage of Air. |
| 0·8277 | 9,672 | 3·4 | 17·0 | 1 | 4·0 | 12·0 | 60·0 |
| | | | | 2 | 3·4 | 14·8 | 74·0 |
| | | | | 3 | 3·8 | 14·6 | 73·0 |
| 0·8920 | 9,313 | 4·8 | 24·0 | 1 | 4·4 | 12·8 | 64·0 |
| | | | | 3 | 6·0 | 11·2 | 56·0 |
| 0·8445 | 9,566 | 5·4 | 27·0 | 1 | 5·2 | 11·2 | 56·0 |
| | | | | 2 | 2·8 | 15·8 | 74·0 |
| | | | | 3 | 3·6 | 14·4 | 72·0 |
| 0·8201 | 8,447 | 5·6 | 28·0 | 1 | 3·8 | 14·2 | 71·0 |
| | | | | 2 | 3·8 | 14·0 | 70·0 |
| | | | | 3 | 4·0 | 13·6 | 68·0 |
| 0·8520 | 9,302 | 6·8 | 34·0 | 1 | 5·0 | 11·6 | 58·0 |
| | | | | 2 | 5·2 | 11·2 | 56·0 |
| | | | | 3 | 6·4 | 10·8 | 54·0 |
| 0·8650 | 8,284 | 8·0 | 40·0 | 1 | 4·8 | 12·0 | 60 0 |
| | | | | 3 | 4·2 | 12·8 | 64 0 |
| 0·8726 | 7,896 | 6·8 | 34·0 | 1 | 4·2 | 13·4 | 67·0 |
| | | | | 2 | 3·8 | 14·2 | 71·0 |
| | | | | 3 | 4·4 | 12·6 | 63·0 |

From the above table it is sufficiently clear that the specific gravity of the gas, its calorific value, and also the percentage of carbon dioxide resulting from the combustion are in no direct relation with the percentage of air contained in the gas. In order to separate the benzine from the gas, experiments were carried out in an apparatus consisting of a series of three retorts, in passing through which the gas was gradually freed from

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its humidity. The retorts were kept in a freezing mixture. The results of the experiments are shown in the following table :—

| Absorbing Liquid and its Specific Gravity. | Quantity of Gas passed. | Properties of the Original Gas. Specific Gravity. | Properties of the Original Gas. Percentage of Oxygen. | Properties of the Resulting Gas. Specific Gravity. | Properties of the Resulting Gas. Percentage of Oxygen. | Quantities and Properties of the Benzine obtained. Percentage of Benzine in proportion to Gas. | Quantities and Properties of the Benzine obtained. Percentage of benzine in proportion to Liquid. | Quantities and Properties of the Benzine obtained. Specific Gravity. | Quantities and Properties of the Benzine obtained. Boiling Points. |
|---|---|---|---|---|---|---|---|---|---|
| Benzine (1.030 litres, sp.g. 0·7669, 834·3 gms.) | | 0·8100 | 3·8 | 0·7703 | 8·0 | 6·8 | 2·9 | 0·7061 | — |
| Kerosene (1,030 litres, sp.g. 0·8108, 917·3 gms.) | | 0·8906 | 5·6 | 0·8476 | 6·6 | 8·9 | 3·9 | 0·6951 | 39°–133° |
| Kerosene (2,060 litres, sp.g. 0·8109, 1,809·4 gms.) | | 0·8784 | 3·2 | 0·8163 | 5·0 | 3·6 | 9·0 | 0·71912 | 44°–149° |
| Blue oil (1,030 litres, sp.g. 0·8822, 862·3 gms.) | | 0·8372 | 3·6 | 0·7753 | 4·8 | 9·6 | 4·7 | 0·7119 | 50°–150° |
| Blue oil (1,030 litres, sp.g. 0·8741, 869·3 gms.) | | 0·8444 | 5·4 | 0·7871 | 5·4 | 7·9 | 3·9 | 0·7274 | 45°–160° |

The fractional distillation of the liquids before the condensation and after the condensation of benzinous vapours has given the following results : —

| Temperatnre. | Benzine. Before Absorption. | Benzine. After Absorption. | Kerosene. Before Absorption. | Kerosene. After Absorption. |
|---|---|---|---|---|
| Up to 70° C. ... | — | — | — | 1·2 c.c. |
| ,, 80° C. ... | — | — | — | 1·6 c.c. |
| ,, 90° C. ... | — | 1·2 c.c. | — | 2·0 c.c. |
| ,, 100° C. ... | — | 2·5 c.c. | — | 2·2 c.c. |
| ,, 110° C. ... | 3·0 c.c. | 5·5 c.c. | — | 2·5 c.c. |
| ,, 120° C. ... | 8·0 c.c. | 12·0 c.c. | — | 3·3 c.c. |
| ,, 130° C. ... | 30·0 c.c. | 29·8 c.c. | — | 5·2 c.c. |
| ,, 140° C. ... | 58·0 c.c. | 55·0 c.c. | 1·0 c.c. | 6·2 c.c. |
| ,, 150° C. ... | 77·0 c.c. | 77·0 c.c. | 4·0 c.c. | 7·2 c.c. |
| ,, 160° C. ... | — | — | 8·0 c.c. | 11·0 c.c. |
| ,, 170° C. ... | — | — | 14·0 c.c. | 17·0 c.c. |
| ,, 180° C. ... | — | — | 21·0 c.c. | 20·0 c.c. |

| Temperature. | Blue Oil. Before Absorption. | Blue Oil. After Absorption. | Blue Oil Purified. Before Absorption. | Blue Oil Purified. After Absorption. |
|---|---|---|---|---|
| Up to 80° C. ... | — | 0·8 c.c. | — | 0·8 c.c. |
| ,, 90° C. ... | — | 1·6 c.c. | — | 1·2 c.c. |
| ,, 100° C. ... | — | 2·4 c.c. | — | 1·8 c.c. |
| ,, 110° C. ... | — | 3·4 c.c. | — | 2·6 c.c. |
| ,, 120° C. ... | — | 3·8 c.c. | — | 3·2 c.c. |
| ,, 130° C. ... | — | 4·0 c.c. | — | 3·6 c.c. |
| ,, 150° C. ... | — | 4·8 c.c. | — | — |
| ,, 160° C. ... | — | 5·0 c.c. | — | — |
| ,, 180° C. ... | — | — | — | 3·8 c.c. |
| ,, 200° C. ... | — | 5·4 c.c. | — | |
| ,, 220° C. ... | 1·8 c.c. | 6·0 c.c. | — | — |
| ,, 230° C. ... | 2·4 c.c. | 6·8 c.c. | 0·5 c.c. | 4·0 c.c. |

In order to ascertain if there resulted any difference in the chemical composition of the benzinous fraction from petroleum and the benzine obtained from gas, the quantities of aromatic hydrocarbons and of their nitro products in both benzines were ascertained, with the following results :—

| Crude Benzine from Petroleum. | | Crude Benzine from Gas. |
|---|---|---|
| | Specific Gravity. | |
| 0·7660 | ... ... ... ... ... ... | 0·7660 |
| | Fraction. | |
| | 100° ... ... ... 120° C. | |
| | Specific Gravity. | |
| 0·7445 | ... ... ... ... ... ... | 0·7330 |
| | Aromatic Hydrocarbons. | |
| 14·4 per cent. | ... ... ... ... ... | 9·2 per cent. |
| | Fraction. | |
| | 95° ... ... ... 105° C. | |
| | Specific Gravity. | |
| 0·7441 | ... ... ... ... ... ... | 0·7378 |
| | Aromatic Hydrocarbons. | |
| 11·2 per cent. | ... ... ... ... ... | 8·8 per cent. |
| | Percentage of Nitro Products in the Last Fractions. | |
| 8·8 per cent. | ... ... ... ... ... | 6·4 per cent. |

As will be seen, there was a notable difference in th chemical composition of the benzinous fractions fro petroleum and gas, as when distilling petroleum larg quantities of aromatic hydrocarbons and of those of th series $C_nH_{2n}$ pass over them with the gas escaping fro petroleum wells.

The above experiments lead to the conclusion th simple absorption affords an easy method of separatin the benzinous vapours from natural gas, and th benzine obtained in this way represents a very goo technical product, not inferior to the benzine obtaine by distillation of petroleum, which can be used wit great advantage for heating under boilers, for illum nating purposes, and in motors. A large apparatus f continuous production of benzine from gas is no being erected.

## NATURAL GAS IN TRANSYLVANIA.

It was in the course of explorations undertaken i order to discover potassium salts, that in 1908 the first ga was discovered at Bagna at a depth of 138 metres wit a yield of 40,000 cubic metres a day. After this dis covery borings at Bolygoret also produced gas, viz from well No. 10 at a depth of 68 metres, 36,000 cubi metres a day ; from well No. 11 at 80 metres, 75,00 cubic metres a day ; from well No. 12 at 220 metres 210,000 cubic metres a day ; and from well No. 13 at depth of 106 metres, 70,000 cubic metres a day.

The inclination of the strata is very weak, which i the cause of the anticlinals, and the relations betwee these have escaped the attention of previous explor tions. Altogether, at present there have been establishe eighteen anticlinal lines parallel in their direction viz., north, north-west, south, south-west and north south. One of these lines has been established for length of 150 metres.

The interesting question is, if in addition to thes sources of natural gas, petroleum sources will also b found, and this question will only be solved by furthe borings, the general direction of which will be that o the anticlinal axis. As these axes have been recognise as indicating the sources of natural gas, and as unde the gaseous strata of the anticlinals there are deposit of potassium salts, it is probable. judging from th analogy with Roumania and Galicia, that these ar indications for the existence there of petroleum.

New legislative measures have been undertaken b the Hungarian parliament concerning these deposit The right of mining property belongs to the Stat which can concede the right of exploitation to privat persons during a certain period of time, and if natura gas is discovered by private persons who have no con cession from the State, this latter has the right o appropriation as regards gas and petroleum, but i this case it must repay to these private persons a the expenditure incurred during their exploratio work.

At the end of 1911 a German-Hungarian compan obtained the authorisation to establish in the distri the manufacture of nitrous products and for this pu pose to use the methane from the natural gas. Th Hungarian State established a compressing installatio for the production of electric energy necessary for th exploration work. It also intends to establish th illumination of Budapest by some of the natural ga for which purpose pipelines at a distance of 450 kil metres will have to be laid through which 187,500,0 cubic metres of gas will be carried into Budapes The gas will be obtained at a cost of about ¼d. p metre cube, while at present coal-gas costs there on th spot over 2½d. per metre cube.

With the extension of exploration work in th district petroleum will most probably be discover and the district will then acquire great importance, n only from the national point of view, but also regards production of oil for the world's markets.

# THE PROGRESS OF LIQUID FUEL.

## IMPORTANT ADDRESS BY MR. J. VEITCH WILSON.

(*Continued from page 330.*)

The advantages claimed for the new system are:—

(1.) The combustion is greatly accelerated by the incandescent surface, and may be concentrated just where the heat is required.

(2.) The combustion is perfect with a minimum excess of air.

(3.) The attainment of very high temperature is possible without the aid of elaborate "regenerative devices."

(4.) Owing to the large amount of radiant energy developed, transmission of heat from the seat of combustion to the object to be heated is very rapid.

Professor Bone enumerates the following as among the terials described as "catalytics" which possess the property promoting flameless combustion: porous porcelain, fireclay, gnesia, platinum, gold, silver, copper, nickel, ferric oxide, ckel oxide, copper oxide, asbestos.

By way of illustrating the action of his process, Professor ne exhibited the following experiment:—

"A mixture of hydrogen and oxygen in their combining oportions (electrolytic gas) is maintained in an enclosed glass amber at a temperature of, say, 450° C. (842° F.), a tendency observed to form steam, but the rate of change is negligibly all. When there is brought into the system some solid porous terial at the same temperature, so that a large surface is posed to the gases, the rate of change is at once rapidly celerated in the layer of gas immediately in contact with the t surface. Steam diffuses outwards from the surface and the pplies of hydrogen and oxygen at the surface diffuse inwards replace the gases consumed. Thus combustion proceeds terogeneously at the surface until the transformation of the iginal electrolytic gas into steam is complete."

Professor Bone describes several forms in which his process y be utilised for heating generally, for chemical and metalrgical operations, for manufacturing purposes, and for steam ising.

The following description will explain the process in eration:—

"A diaphragm is composed of granules of fire-brick bound gether in a suitable way; the diaphragm forms the front of shallow metallic chamber of the same area as the diaphragm; s and air in suitable proportions are admitted to the chamber a pipe at the back, and, passing through the diaphragm, are ited in front. More air is admitted till a fully aerated ixture is obtained. The flame soon becomes non-luminous and minishes in size; a moment later it retreats on to the surface the diaphragm, which at once assumes a bluish appearance; on, however, the granules at the surface attain an incipient d heat; finally, the whole surface layer of granules becomes d hot and an accelerated 'surface combustion' comes into ay.

"When it is desired to apply the principle to a steam boiler, e ordinary tubes are replaced by special tubes of 3 in. diameter, hich are filled with fire-clay, fire-bricks, or similar material; e space of the fire-box is taken by a gas chamber through the ixture of gas, and air is driven or sucked into the tubes in hich it is ignited, and burns with non-luminous heat."

The inventors claim that by this process steam may be raised om the cold in about twenty minutes.

Despite, however, the fact that the potential value of the w fuel was speedily recognised, in regard to which I shall ve something to say to you shortly, I think that it will be nerally conceded that the practical utilisation of liquid fuel, r the generation of heat and power, either in furnaces or in ternal combustion engines, has been reserved for the entieth century even, perhaps, for the half-dozen years immediately preceding that which is now current.

Of the two methods of utilising liquid fuel, in furnaces or in ternal combustion engines, it is probable that the efforts of inventors would be, in the first place, directed to the former, as we know that, although the idea of an internal combustion engine or explosion engine operated by gunpowder or by turpentine or some other volatile liquid, had been simmering in men's minds for upwards of a century, it did not assume a practical shape till Otto placed his engine upon the market in 1876 or 1877, and we know that it was not till the success of the Otto engine had demonstrated the feasibility of his principle that the idea of substituting light hydro-carbon spirit or oil for gas was introduced.

But whether the fuel is to be used in a furnace or in some form of internal combustion engine, a great "Diesel" or the smallest petrol motor, the same governing principle obtains, viz., that the combustible shall be intimately and rapidly combined with the oxygen which is necessary to effect combustion. Two actions are thus called for, viz., introduction or injection and combination, before the third, or chemical action or combustion is effected, and it will now be convenient to consider the arrangements required for this purpose.

Two mechanical actions are involved in the introduction of fuel, whether to a furnace or to an internal combustion engine, "Injection" and "Combination."

Injection.—There are three methods in use for effecting this:—

By a current of air, gas, or steam.
By force pump.
By suction, as in automobile engines.

In furnaces the first-named is more common, and we, therefore, deal with it first.

The principle, with which you are all well acquainted, is that a fluid, air, gas, or steam, flowing at a high velocity, is able to impart motion to, and to carry with it some quantity of another liquid. The principle is seen in operation in that, to me, most wonderful apparatus, the steam-water injector, of which I believe that Giffard's is one of the earliest and Koerting's one of the most efficient specimens. The principle, common to all forms of injector with which I am acquainted, seems to be the production, at a given point, of a vacuum which the liquid, or other material to be operated on, rushes in to fill.

Seeing that the "injector" plays such an important part in connection with the use of liquid fuel, I desired to learn something about its inception, and for information I had recourse to the Patent Library, going back in my search as far as the year 1855.

In the prosecution of my inquiry I was struck by the fact that, in spite of the endless and almost indistinguishable variety in details, only two principles were recognisable in all:—

(1.) The use of two concentric cylindrical or conical tubes with reduced nozzles, the inner tube containing the liquid to be injected while the outer conveyed the operating fluid; this principle is found, with some modifications, in most of the liquid fuel burners of the present day.

(2.) In the second form of injector two tubes are placed at a right angle, their ends meeting. The horizontal member supplies steam or compressed air at a high velocity across the open end of the vertical tube. In some cases the vertical tube connects upwards with an overhead tank of oil, which flows downwards by gravitation; in others, but less frequently, the fuel supply pipe rises vertically from a lower level and the oil is sucked upwards by the current of steam or air after the manner of the spray perfume apparatus with which we are all familiar. A form somewhat akin to this is still to be found in operation in most automobile carburettors.

I have referred to Giffard's injector as being, to my mind, the parent of the whole family of liquid fuel burners and carburettors. It may, therefore, interest you if I mention that—

Giffard's first patent was taken out on July 23rd, 1858 (which was before the discovery of petroleum), and is described as "applied to feeding a steam boiler and for raising and forcing fluids."

Hancock, whose name is familiar to all users of steam, appeals to us with peculiar interest, as his first patent, December 17th, 1864, is for "a blast apparatus for furnaces," and for "promoting the evaporation of liquids." Combine the two purposes and you have something very like an oil burner.

Koerting makes his first appearance on the patent register with a "provisonal" on November 18th, 1869, and claims, like Giffard, "feeding boilers and raising water."

In the course of my "Patent Search" I found a large number from 1860 to the present date, dealing directly with liquid fuel. I enumerate a few of the more important:—

A. E. Berard, April 4th, 1862.—Berard's is the first patent, of which I find any record, for liquid fuel. He describes his apparatus as an "injector for air and gas for gas-fired furnaces used in making steel."

Valentine & Levick, August 6th, 1862.—These gentlemen describe their apparatus as one for burning "Poor Gas" produced by passing a blast of steam or hot air through incandescent coal or carbonaceous material. Surely, to all intents and purposes, the prototype of all carburettors, if not also of the modern "Gas Producer," Dowson's included.

Wise, Field & Aydon, October 16th, 1865.—The first direct reference to liquid fuel occurs in the patent granted to Wise, Field & Aydon. Their specifications and drawings show a horizontal pipe with restricted opening, through which steam is forced, meeting a stream of oil and air from a vertical pipe delivering immediately above the nozzle of the steam pipe.

Aydon & Field, March 29th, 1867.—These gentlemen, whose names were mentioned in connection with the patent just referred to, make their appearance again with another invention for the use of "liquid, gaseous, and pulverulent fuel fittings for furnaces." The drawings show a horizontal pipe conducting steam and a vertical pipe from an overhead tank which delivers the fuel in front of the steam jet by which it is sprayed into the furnace. The curious thing about this patent is the reference to "pulverulent" fuel, by which coal or coke in the form of powder is understood. Evidently Dr. Diesel was not the first to appreciate the value of coal in a pulverised condition as a fuel.

B. F. Stevens, July 29th, 1867.—Steam is supplied through a pipe terminating in a nozzle, within and concentric with which is a tube through which petroleum or other liquid hydro-carbon is supplied. This patent is interesting as being the first in which special reference is made to the use of petroleum as fuel for furnaces, just eight years after the discovery of that article. In subsequent patents frequent references are made to petroleum, paraffin, naphtha, tar, creosote, and other residual products.

Norton & Hawksley, August 22nd, 1867.—The patentees describe their invention as for "liquid fuel fittings and blast apparatus" specially adapted for the use of petroleum. The interesting thing about this patent is that the patentees recommend the use of "helical internal ribs to direct the air current." The arrangement is, I understand, common in modern practice.

In 1868 half a dozen patents were taken out for apparatus for burning liquid fuel, and in subsequent years the number of patents steadily increased as the production of oil in the world extended in respect to both quantity and area.

Having thus shown you that, within ten years after the discovery of petroleum, its value as a fuel had been recognised and apparatus for its use designed, I shall not continue my account of these earlier burners.

Before leaving this subject I should, however, like to refer to another invention which, not of immediate interest to marine engineers, is of general interest in these days of motor cars and motor cycles, which we are apt to claim as wholly modern products. It is, therefore, curious to find that letters patent were granted to Mr. E. Butler, on November 15th, 1887, for what he describes as "Ejectors for carburetting air for use in petroleum engines for driving tricycles and other vehicles," so that motor cars and motor cycles are not quite such novelties as we are fondly disposed to regard them.

But while, from the hasty account which I have given you of these early devices for using liquid fuel, it will be apparent to you that its value had been realised and various methods for its utilisation had been suggested, its general adoption was for many years barred by the high price of oil, which rendered it much more expensive than coal.

I propose now to devote a little attention to the modern methods of utilising liquid fuels and to the fuels available fo that purpose.

The first instance with which I am acquainted of the practica use of liquid fuel occurred at the Broxburn Oil Works, near Edinburgh. One of the difficulties which the Scottish Oil Refiners had to face was that of disposing of the acid tar from their refining operations for which no market could be found One common practice was to discharge it on the spent shal heaps, while these were still glowing hot, and allow the ta to burn away. Another practice was to construct small brick furnaces in which the stuff was burned to waste. In both case huge volumes of black smoke were liberated, which destroyed the farmers' crops and involved heavy claims for damage.

I shall now let Mr. Norman Henderson, the inventor of the apparatus and, I believe, one of, if not absolutely the first man in this country to utilise liquid fuel, speak for himself in the extract from his letter, which I shall read to you. He says:—

"When I entered the service of the Oakbank Oil Company in 1869, to erect and manage their works, I took the opportunity of constructing the still furnaces in such a way as to burn the tar and get what we could out of it. This was simply done by forming a 4½-in. brick arch in the front end over the furnace about two-thirds the length of the bars, and the arch levelled up to form a bed on the top for the tar. The tar was allowed to run in a continuous stream on the hot bed, sufficient to feed it. The tar burned readily on the hot brick bed, and gave of a good deal of heat, which assisted materially the coal furnace in heating the still. Any coke that was formed on the bottom of the bed was pushed over, from time to time, at the back into the open space of the furnace, where it burned along with the other fuel.

"By working the tars in this manner I found that we got considerable heat, one ton of tar being equal to one ton of coal but a good deal of labour was involved in working this process and it also had the objection that it produced much smoke.

"On joining the Broxburn Oil Company, in 1878, I took the opportunity, in erecting the new works, of making an improvement for the burning of the tars, by fitting the stills with injectors, instead of the old system as above described. The new arrangement proved a great success, and I found that one ton of tar was about equal to two tons of coal when atomised by the injector with steam. By this system the waste tars became an important saving, doing away with most of the coal used at the stills. It was also a saving of labour, and produced very little smoke, a very important matter. I enclose a sketch showing, on a small scale, the still furnace, fitted with injector; and a full-sized sketch of the furnace tar injector itself, as used at present by us. The ashpit front openings are closed by a sliding door, and in that door is a small aperture for regulating the air supply. I have tried both air and steam for the injector, and find that steam gives the best results, especially with a little superheat."

It is interesting, incidentally, to find that, although Mr. Henderson has every reason to congratulate himself on the success of his arrangements for burning oil in furnaces, he does not expect to see it generally adopted in this country. In his letter, from which I have just quoted, he goes on to say:—

"My personal opinion is that the cost of oil fuel for the raising of steam is out of the question in the United Kingdom, where coal is, relatively, so much cheaper. No doubt large quantities of oil fuel are used to great advantage, as against coal, in many of the processes of our manufacturers, as well as in the Navy, where cost is a secondary matter, while the marine engineers are now giving more attention to the use of oil in internal combustion engines."

"Of course, you are aware," he goes on to say, "that the latest practice in the Navy in burning liquid fuel is by heating the oil and then forcing it into the furnace under pressure of a pump, which gives better results than the injector, and is more easily controlled."

Mr. Henderson's success with liquid fuel induced a friend of his and mine, Mr. William McLaren, manager of the Ardan S.S. Company, to fit up one of the steamers of his fleet to use tar fuel. The results were entirely successful, but as, when greater supplies were required, the price advanced from about 30s. to between 40s. and 50s. per ton, the cost was found to be too great, and Mr. McLaren reverted to coal.

(*To be continued.*)

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

March 27th, 1914.

The prices for Refined Petroleum are as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7¾d.; Galician, 7½d.

### LUBRICATING OILS

are quoted—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 10s. 0d.
American dark, from £10. 15s. 0d.
American filtered cylinder, from £13. 2s. 6d.

### FUEL OIL.

The market price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

s quoted 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

1s. 9d. per gallon is quoted for the best quality and s. 7d. per gallon for the second quality retail in London.

### TURPENTINE

American spot is quoted 32s. 6d.; April, 32s. 7½d.; May/August, 33s. 1½d.; September/December, 34s. 1½d.: anuary/April, 35s. 1½d.

## LIVERPOOL.

March 26th.

Petroleum oils have a steady sale, and former urrencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, February 22nd.

The following are the current prices of the Standard il Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, td., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| sing Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| sing Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| ill Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| ill Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| van Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| van Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| ichor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| ell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| ichor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah l Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| rosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per casc of two tins ... ... ... | 4 | 15 | 0 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| rmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, March 24th.

Refined, in cases, is quoted at 11·25; Standard White 8·75; Credit balances, 2·50.

PHILADELPHIA, March 24th.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, March 25th.

The petroleum prices remain unchanged. The offer for kerosene begins to be lively, while the benzine market is quiet. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality 37·00–38·00, second quality (0·750–0·770 gravity) 32·00–33·00.

## RUSSIA.

BAKU, March 24th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 42¾–43 copecs per pood spot. Kerosene, 50–51 copecs. Residuals, 39¼–39½ copecs.

## ROUMANIA.

March 24th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·35 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–6·75 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

March 24th.

Crude oil is quoted 8·00–8·15 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 690/700, 40–41 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date March 26th as under:—

Business is still very quiet and the prices which are being offered are unacceptable to makers, who are holding out for undermentioned figures:—

| | | | | |
|---|---|---|---|---|
| 1c | 18¾ × 14 | 124 sheets | 110 lbs. ... | 13/6 per box. |
| 1c | 20 × 10 | 225 ,, | 156 ,, ... | 19/- ,, ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MARCH 23RD, 1914 (excluding any Imports which may not be disclosed)—

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| Mar. | LONDON— | | | |
| 17 | Port Authority | Lub. | 2,800 | Hamburg |
| 17 | ,, | ,, | 130 | ,, |
| 17 | A. Duckham & Co. | ,, | 480 | Antwerp |
| 17 | Vacuum Oil Co. | ,, | 810 | New York |
| 17 | Anglo-American Oil Co. | ,, | 62,960 | ,, |
| 17 | Union Lighterage Co. | ,, | 8,000 | ,, |
| 17 | Produce Brokers Co. | ,, | 2,600 | Philadel. |
| 17 | Lubricating & Fuel Oils Co. | ,, | 318,500 | ,, |
| 18 | Mercantile Lighterage Co. | ,, | 4,480 | New York |
| 18 | E. G. Boize | ,, | 190 | Hamburg |
| 18 | Port Authority | ,, | 300 | ,, |
| 18 | Asiatic Petroleum Co. | Benzine | 1,493,400 | Aberdeen |
| 19 | Hanseatic Maritime Agency | Lub. | 80 | Bremen |
| 19 | British and Foreign Wharf | ,, | 50 | Antwerp |
| 19 | Vacuum Oil Co. | ,, | 39,700 | New York |
| 21 | J. Spurling | Lub. Gr. | 200 | ,, |
| 21 | Ragosine & Co. | Lub. | 5,250 | Philadel. |
| 21 | Bowring Petroleum Co. | ,, | 4.890 | ,, |
| 21 | Worthington & Boler | ,, | 6,840 | ,, |
| 21 | Port Authority | ,, | 2,290 | Hamburg |
| 23 | Hanseatic Maritime Agency | ,, | 120 | Bremen |
| 23 | Vacuum Oil Co. | ,, | 240 | Hamburg |
| 23 | L. Freeland | Lub. Gr. | 840 | Antwerp |
| 23 | R. O. Weiner & Co. | ,, | 40 | ,, |
| 23 | A. Duckham & Co. | Lub. | 480 | ,, |
| 23 | Leach & Co. | ,, | 80 | Ghent |
| 23 | Anglo-Persian Oil Co. | Fuel | 3.120 | Suez |
| 23 | Asiatic Petroleum Co. | Benzine | 788,400 | Rotterdam |
| 23 | ,, ,, | ,, | 1.074,200 | Rangoon |
| 23 | Langley, Smith & Co. | Lub. | 4,410 | N. Orleans |
| 23 | ,, ,, | ,, | 24,310 | New York |
| 23 | Kidston & Co. | Lub. Gr. | 2,900 | Philadel. |
| 23 | J. W. Cook & Co. | Lub. | 10,560 | ,, |
| 23 | Anglo-American Oil Co. | ,, | 8,000 | ,, |
| 23 | ,, ,, | ,, | 14,000 | ,, |
| 23 | Kidston & Co. | Lub. Gr. | 2,660 | ,, |
| 23 | Lubricating & Fuel Oils Co. | Lub. | 2,580 | ,, |
| 23 | Mercantile Lighterage Co. | ,, | 11,800 | ,, |
| 23 | Bowring Petroleum Co. | ,, | 6.710 | ,, |
| | LIVERPOOL— | | | |
| 18 | F. Chiesman & Co. | ,, | 690 | New York |
| 18 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 19 | C. W. Field | Lub. | 490 | Antwerp |
| 19 | Pickford's | Lub. Oil and Paste | 680 | Hamburg |
| 20 | W. H. Stott & Co. | Lub. | 1,200 | Riga |
| 20 | Vacuum Oil Co. | ,, | 1,000 | ,, |
| 20 | ,, ,, | ,, | 4,000 | Fiume |
| 20 | C. C. Wakefield & Co. | Lub. Gr. | 80 | Antwerp |
| 20 | ,, ,, | Lub. | 2,520 | Baltimore |
| 21 | Bramwell, Fern & Co. | ,, | 191,100 | Batoum |
| 21 | Meade-King, Robinson & Co. | ,, | 191,100 | ,, |
| 21 | ,, ,, | ,, | 7,800 | Baltimore |
| 21 | Anglo-American Oil Co. | Gas | 801,040 | New York |
| 21 | Vacuum Oil Co. | Lub. | 34,000 | ,, |
| 21 | ,, | Lub. Gr. | 480 | ,, |
| 21 | Bowring Petroleum Co. | Lub. | 2,850 | Baltimore |
| 23 | A. Hopps & Sons | M. Colza | 2,600 | ,, |
| 23 | ,, | ,, | 2,720 | ,, |
| 23 | ,, | Lub. | 28,680 | ,, |
| 23 | Meade-King, Robinson & Co. | Lamp | 5,200 | ,, |
| 23 | ,, ,, | Lub. Gr. | 2,600 | ,, |
| 23 | Burnaby & Chantrell | Lub | 5,230 | ,, |
| 23 | Fellows, Morton & Clayton | ,, | 4,520 | New York |
| 23 | W. Crawford | Lub. Gr. | 220 | ,, |
| 23 | Gandy Belt Co. | ,, | 80 | Antwerp |
| | BOSTON— | | | |
| 23 | W. F. Beaumont | Lub. | 900 | Hamburg |
| | BRISTOL— | | | |
| 17 | H. Matthews & Co. | ,, | 160 | Antwerp |
| 18 | British Petroleum Co. | Lamp | 834 900 | Sabine |
| 18 | C. Hill & Sons | Lub. | 7.720 | New York |
| 18 | H. Pritchard & Co. | Lamp | 4,200 | ,, |
| 19 | W. G. Clarke | Lub. | 40 | Antwerp |
| 19 | Ford & Canning | ,, | 8,810 | New York |
| 21 | J. & R. Bush | ,, | 22,360 | ,, |
| 21 | Asiatic Petroleum Co. | Benzine | 523,800 | Rangoon |
| 23 | Pickford's | Lub. Oil and Gr. | 710 | Hamburg |
| 23 | W. G. Clarke | Lub. | 480 | Antwerp |
| | GOOLE— | | | |
| 17 | Goole Steamship Co. | ,, | 80 | Hamburg |
| Mar. | GRIMSBY— | | | |
| 17 | J. Sutcliffe & Son | Lub. | 680 | Antwerp |
| 17 | ,, | ,, | 100 | ,, |
| 19 | ,, | ,, | 60 | Hamburg |
| 19 | ,, | ,, | 60 | Antwerp |
| | HARWICH— | | | |
| 18 | Great Eastern Railway | ,, | 300 | ,, |
| 19 | ,, ,, | ,, | 200 | ,, |
| 21 | ,, ,, | ,, | 40 | ,, |
| | HULL— | | | |
| 19 | Wilson's & N. E. Railway | ,, | 880 | Hamburg |
| 19 | T. Wilson, Sons & Co. | ,, | 2,000 | Riga |
| 19 | ,, ,, | ,, | 52,520 | New York |
| 20 | W. Gilyott & Co. | ,, | 30,840 | ,, |
| 23 | Wilson's & N. E. Railway | ,, | 560 | Hamburg |
| 23 | ,, ,, | ,, | 1,160 | Antwerp |
| | MANCHESTER— | | | |
| 17 | Vacuum Oil Co. | ,, | 210 | Hamburg |
| 17 | Anglo-American Oil Co. | Gas | 523,770 | New York |
| 17 | ,, ,, | Fuel | 134,260 | ,, |
| 19 | J. Nall & Co. | Lub. | 500 | Antwerp |
| 20 | British Petroleum Co. | Lamp | 834,900 | Sabine |
| 20 | Liverpool Storage Co. | Lub. Oil and Gr. | 2,810 | New York |
| 20 | ,, ,, | Lub. | 16,560 | ,, |
| 20 | D. Currie & Co. | Lub. Oil and Gr. | 270 | Antwerp |
| 20 | J. T. Fletcher & Co. | Lub. Gr. | 800 | ,, |
| 23 | Anglo-American Oil Co. | ,, | 2,780 | New York |
| 23 | ,, ,, | Lub. | 44,530 | ,, |
| 23 | Liverpool Storage Co. | ,, | 2,000 | ,, |
| 23 | W. W. Jones, Dooly & Co. | ,, | 8,080 | ,, |
| | MIDDLESBROUGH— | | | |
| 17 | J. J. Sutherland & Co. | ,, | 200 | Antwerp |
| 17 | E. Harris & Co. | ,, | 800 | ,, |
| | NEWCASTLE— | | | |
| 17 | P. H. Matthiessen & Co. | ,, | 140 | Bergen |
| 20 | Tyne-Tees Steamship Co. | ,, | 5,000 | Antwerp |
| 20 | ,, ,, | ,, | 6,000 | Hamburg |
| | SWANSEA— | | | |
| 19 | R. Turpin & Co. | ,, | 2,460 | New York |
| | ABERDEEN— | | | |
| 23 | R. C. Reid & Co. | ,, | 3,400 | Hamburg |
| | GLASGOW— | | | |
| 17 | Clyde Shipping Co. | ,, | 3,530 | Antwerp |
| 17 | Anchor Line | ,, | 4,800 | New York |
| 23 | ,, | ,, | 49,890 | ,, |
| | LEITH— | | | |
| 19 | Jas. Currie & Co. | ,, | 360 | Hamburg |
| 20 | ,, | ,, | 240 | Bremen |
| 20 | G. Gibson & Co. | ,, | 3,200 | Dunkirk |
| 23 | ,, | ,, | 200 | Antwerp |
| 23 | Jas. Currie & Co. | ,, | 17,800 | Hamburg |
| 23 | ,, | ,, | 4,800 | ,, |
| | DUBLIN— | | | |
| 23 | P. Murphy & Co. | ,, | 60 | ,, |
| | | | 8,370,240 | |
| | Deduct— | | | |
| | LONDON— | | | |
| 13/2 | Homelight Oil Co. | Lamp | 6,240 | Batoum |
| | BARROW— | | | |
| 3/2 | Anglo-American Oil Co. | ,, | 1,100 | New York |
| 3/2 | Bowring Petroleum Co. | ,, | 14,060 | P. Mexico |
| | HULL— | | | |
| 14/2 | W. Gilyott & Co. | Lub. | 2,600 | New York |
| | | | 8,346,240 | |

# The Petroleum Review.

*Founded by* **PAUL DVORKOVITZ.**

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## THE PETROLEUM REVIEW.

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Oil Exhibition.

TO-DAY the World's Oil Industries Exhibition, at Earl's Court, closes after what may be said to have been a very successful fortnight's run, and the programme which has been drawn up for winding up the Exhibition will not only be interesting, but very picturesque. The centre of the hall will be specially decorated for the occasion, and flags representing various nations will be in evidence. The exhibitors have decided to show their appreciation to Mr. G. D. Smith, the general organiser, by presenting him with a beautifully illuminated address which contains the names of the principal firms who have taken part in this first serious attempt to get a comprehensive oil show together in this country. The hint dropped at the opening of the Exhibition that such shows would be of great advantage if held yearly has not been allowed to pass unnoticed, for we learn that Mr. Smith has already opened negotiations in order to have the next Oil Exhibition about October, 1915. With a view to securing the more hearty co-operation of European governments in the scheme it has also been suggested that local committees should be formed—a proposal which is worthy of adoption since it would of a certainty tend to give the future exhibitions more of an international aspect than that enjoyed by the present one. It is interesting here to mention that, from an exhibitor's point of view, the Exhibition has been a distinct success, for it has brought the manufacturers of various plant, etc., in direct touch with both old and new customers.

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### The Mid-continent Oilfield.

DURING the past few days the Mid-continent field of America has again shown fresh evidence of its ability to furnish exceptionally large producing wells, for in the Cushing field two wells have been brought in, one with a yield of over 250 barrels per hour, and another with approximately one-half that oil output. Since the passing of the famous Glenn pool there has been no field developed in the Mid-continent regions to equal the Cushing territory, where the Bartlesville formation is particularly rich. It is worthy of record that within a few weeks of the development of this formation, the total production of the Cushing field has reached the substantial total of 50,000 barrels daily, or almost one quarter of the entire output of the Mid-continent region. Since its active development, Oklahoma and Kansas field has produced considerable evidence of the richness of its producing sands, and when interest in its operations commences to lag, some momentous oil strike is generally reported, all of which strongly points to the fact that there is still an enormous wealth of oil awaiting the carefully directed drill in these regions.

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### The London Chamber of Commerce and the Petroleum Industry.

THERE can be no doubt that the Petroleum and Allied Trades Section of the London Chamber of Commerce, the formation of which was agreed to this week at a meeting of the Chamber, will, when its constitution and scope have been defined, be of great advantage to those associated with the petroleum interests of this country as a whole. Other important branches of commerce have their own sections, and the formation of this, the latest section, will be generally welcomed. The growing importance of this country's association with the petroleum industry, naturally warrants the Chamber taking such a step, and we have every reason to believe it will almost immediately become one of the most important and also among the most active of the various sections of the London Chamber of Commerce. One point, however, has occurred to us in connection with the provisional committee which was elected this week, and that is, we should have liked to have seen a preponderating weight of gentlemen upon it who represent the commercial side of petroleum commerce But this will, no doubt, be made good as time goes on.

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### The Standard's China Concessions.

THE passing by the Chinese Government of its oil territories to the Standard Oil Company—an important subject dealt with fully in a recent issue of the REVIEW—seems to be causing not a little feeling in the Far East. Japan holds to the opinion that the agreement with the Standard Oil Company has been a violation of Japanese treaty rights, and as a consequence is making a bold bid to endeavour to get the agreement modified. As a matter of fact—although it is not generally known—the Japanese Government has approached China upon two occasions in the past with a view to securing the rights for petroleum exploitation which have been given to the Standard, but upon each occasion has been unsuccessful. But even now Japan has not thrown up the sponge, for efforts are to be put forth in order to obtain Chinese oil concessions outside the area granted to the Standard. Whatever will be the result of the present negotiations, one thing is certain—the agreement with the Standard will not in any way be modified.

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## SERIOUS ACCIDENT TO S.S. "TEUTONIAN."

WHILE on her trial trip last Wednesday off the mouth of the Tyne, the new oil-tanker "Teutonian," built at the Sunderland yards of Messrs. Laing & Sons to the order of the Petroleum Steamship Company, went ashore on St. Mary's Island, Whitley Bay, the weather being hazy. Later, the tanker was refloated and proceeded to the Tyne, but not before discharging her water ballast. The damage is apparently extensive, as she is leaking from forward to aft of amidships. The "Teutonian" is now in dry dock. The vessel was launched on February 25th by Mrs. Richard Airey.

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## THE "ELAX" DISCHARGING A CARGO AT OIL PORT, ROTTERDAM.

THE oil-tanker "Elax" has been at Rotterdam during the present week, discharging a full cargo of motor spirit into the tanks of the Bataafsche Petroleum Maatschappij. The snap-shot here reproduced was taken last Monday from aboard the new twin-screw Diesel motor-vessel "Artemis."

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**The Sale of Kerosene.**—The question of the sale prices of kerosene, in view of the very high prices of crude oil, is causing anxiety to the refiners, as the price of kerosene at the refineries is at present 7·80 francs per 100 kilos, while the price of crude oil is considerably higher, and as the State has fixed prices to be on the basis of 4·50 francs added to the average price of crude oil, the situation is abnormal.

## GEOLOGISTS WANTED.

REQUIRED immediately, two Assistant Geologists to assist Dr. T. O. Bosworth, D.Sc., M.A., F.G.S., Consulting Geologist.—Reply, with all details of experience, to DR. BOSWORTH, 12, Giles Street, Northampton.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended March 28th was 113,000 poods.

SPIES PETROLEUM COMPANY, LTD.—The production for week ended March 29th was 280,495 poods, or about 4,524 tons. The total production for the year from January 14th to March 29th was 3,062,475 poods, or about 49,395 tons. The total production for the corresponding period last year was 3,051,380 poods, or about 49,216 tons. Price of crude oil at Baku is now 40¾ copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD.—The production of crude oil for week ended March 28th was 23,073 poods, or 372 tons.

EUROPEAN OILFIELDS CORPORATION, LTD.—The production for the week ended March 29th was 112,000 poods, or 1,806 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended March 28th was 126,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended March 28th was 20,951 poods (338 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended March 28th was 7,960 poods (128 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended March 29th was 13,604 poods, or 220 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended March 28th, 91,260 poods, or 1,472 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The total production for week ended March 31st was 475,064 poods, or 7,662 tons. Corresponding period last year, 1,595 tons.

BIBI-EIBAT OIL COMPANY, LTD.—Production for the week ended March 29th was 86,933 poods, or 1,402 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended March 28th was 4,420 poods, or 71 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended March 28th was 16,987 poods (274 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended March 28th was 1,165 poods (18 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended March 28th was 2,680 poods, or 43 tons.

CHELEKEN OILFIELDS, LTD.—Production for the fortnight ended March 28th, 1,819 tons.

GERHARD & HEY,
OILFIELDS SHIPPING AGENTS,
Great St. Thomas Apostle
(Off Cannon Street).
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
LONDON, E.C.

# Demonstration Trip of the Motor-vessel "Artemis."

## AN INTERESTING RUN ON THE RIVER MAAS.

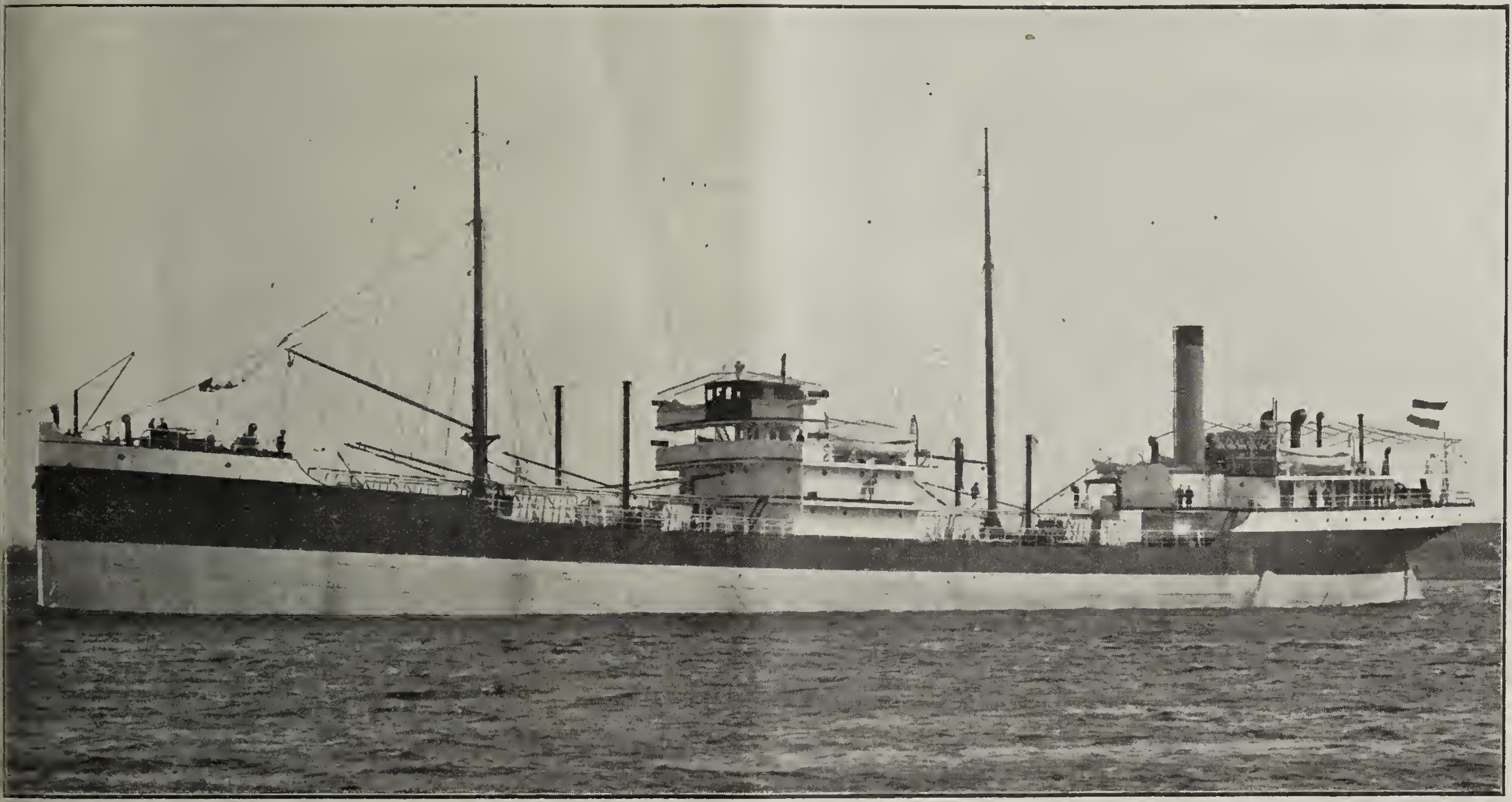
### EXCLUSIVE REPORT.

AT the invitation of the Nederlandsche Scheepsbouw aatschappij, the well-known Amsterdam firm of oil anker builders, a large party of gentlemen boarded he new Diesel-engined oil tanker "Artemis" at otterdam last Monday for a demonstration trip on the iver Maas.

The "Artemis" has been built to the order of the ederlandsche Indische Tankstoom boot Maatschappij, ne of the bulk oil transporting companies associated ith the Royal Dutch-Shell combine, and is intended o augment its present fleet of some thirteen or fourteen nkers of various sizes trading between the Far astern oilfields and the Chinese-Japanese Pacific oast and European markets. Of recent years it is nown that a wonderful improvement has been noticeble in the excellence of the workmanship of oceanoing oil tankers, and the "Artemis" can justly claim he first place in this respect. Without doubt she is hereabouts the last word in oil tanker construction, or, built as she has been in Dutch yards, the vessel is nished with that regard for elegance and comfort hich is usually a characteristic of all Dutch-built oats, yet invariably lacking in tankers of British onstruction.

The vessel has an overall length of 362 ft., with a ength between perpendiculars of 346 ft. The extreme readth is 46½ ft., and the depth moulded to upper eck 27 ft., while the draught on summer freeboard is 2 ft. The total deadweight of the vessel is 5,150 tons.

The "Artemis" is fitted with seven pairs of oil anks and a continuous trunk with summer tanks extending over two compartments on either side. The total capacity of the main tanks and summer tanks is 4,600 tons calculated at 50·66 cubic ft. per ton. The pump-room is situated between aftertank and crossbunker and the pumping installation consists of a steam-driven Hayward Tyler benzine pump, and one rotary benzine pump driven by the auxiliary motor in the engine room by means of a brass-lined shaft running through the cofferdam and crossbunker through a welded steel tube. A 10-in. double pipeline is fitted from the pumps to the tanks and to the deck for loading and unloading bulk oil cargoes, the capacity of the pipes being such that the vessel can be either loaded or discharged with great rapidity. Vapour pipes are fitted to all tanks, so that the loading and discharging of benzine cargoes can be carried out with all the hatches closed, admittance of air and escape of gases being through these vapour pipes, which have their opening in a vertical pipe thirty feet above the deck on the foremast.



The Diesel-driven Oil Tanker—"Artemis."

The vessel is also equipped with special cargo gear for shipping packed cargo, for which reason the tank lids are made 7 ft. by 5 ft., two lids being fitted above each summer tank. Six steam winches are placed on the main deck for working cargo, while one mooring winch is on the poop.

The accommodation for both officers and crew is of a superior character, the captain's and officers' quarters being on the bridge deck amidships, and that for the engineers on the poop deck, the crew accommodation being made in the poop. The steering is operated with telemotor gear from the bridge to steam steering gear in the poop.

The "Artemis" has been engined by the Nederlandsche Fabriek van Worktuigen en Spoorwegmaterieel, at Amsterdam, and is fitted with two Werkspoor Diesel reversible six-cylinder motors working on six cranks and coupled direct to the screw shaft. The engines are on the four cycle principle, and operate at 135 revolutions per minute. The cylinders have a diameter of 520 mm., with a stroke of 900 mm., each set of motors having a brake horse-power of 900, the combined power available thus being 1,800. A two-cylinder four-cycle non-reversible auxiliary motor of 100 b.h.p. has been fitted for driving the air compressors, rotary cargo pumps, cooling water and bilge pumps, while a 16 h.p., Deutz petroleum motor is placed in the engine room for the electric light installation.

Looking aft from the bridge of the "Artemis."

For working the steam steering gear, winches and windlass, cargo pumps, and auxiliaries, a donkey boiler is installed, this being fired on the well-known Meyer-Smith liquid fuel system, and 900 square feet heating surface has also been placed in the engine room. In order to economise the fuel consumption in the donkey boiler as much as possible, arrangements have been made for utilising the heat of the exhaust gases of the motors by passing them through the boiler so as to raise steam for the steam-driven auxiliaries. The "Artemis" carries no coal except for the galleys. Upon her trials a few weeks ago the vessel attained a speed of 10¾ knots per hour, this being in advance of the contract

Monday's demonstration was in every way a great success. The engines worked with perfect smoothness, and everyone on board was impressed with the ease with which the gigantic vessel was manœuvred. The party on board the "Artemis" included Mr. Hugo Loudon (director of the owning company), Mr. Mark Abrahams (Anglo-Saxon Petroleum Company, Ltd.), Mr. C. Zulver (marine superintendent to the Anglo-Saxon Petroleum Company, Ltd.), Mr. Percival M. Watts (Messrs. Watts, Fincham & Co.), Mr. H. Sluiter (Inspector voor de Scheepvaart, Amsterdam). Mr. J. B. Slebe (Lloyd's Register, Amsterdam), Mr. Herbert B. Gregson (Messrs. Flannery & Gregson, Rotterdam), Mr. R. van Vloten (engineer to the engine constructors, der Nederlandsche Fabriek van Werktuigen en Spoorwegmaterieel, Amsterdam). Mr. Cohen Stuart (late Minister of the Dutch Navy), Mr. J. Muysken, Mr. H. Goedkoop (director of the Nederlandsche Scheepsbouw-Maatschappij), Mr. Ch. Penning (chief constructor to the Nederlandsche Scheepsbouw-Maatschappij), Mr. W. J. Muller (engineer to the Royal Packet S. N. Company, Amsterdam), and the representative of the Review.

During dejeuner, which was served to the guests in the spacious saloon, Mr. Hugo Loudon (director of the owning Company as well as of the Anglo-Saxon Petroleum Company, Ltd., the Royal Dutch Company and other affiliated concerns) presided, and in a few remarks expressed the pleasure which the owners felt at having had such a large party of guests present at that demonstration trip. The "Artemis," which as those present knew was a Diesel-engined oil-tanker, had already proved a success on her trial trips which took place a few weeks ago, and he had no doubt the vessel would have a successful trading career. As some might be aware, "Artemis" was the goddess of the chase, and of course they would know the story of the shepherd who wished to know much more about Artemis than Artemis wanted to know of him. Artemis changed the shepherd into a bird, and he was punished by being eaten up by wolves. He was not going to liken either

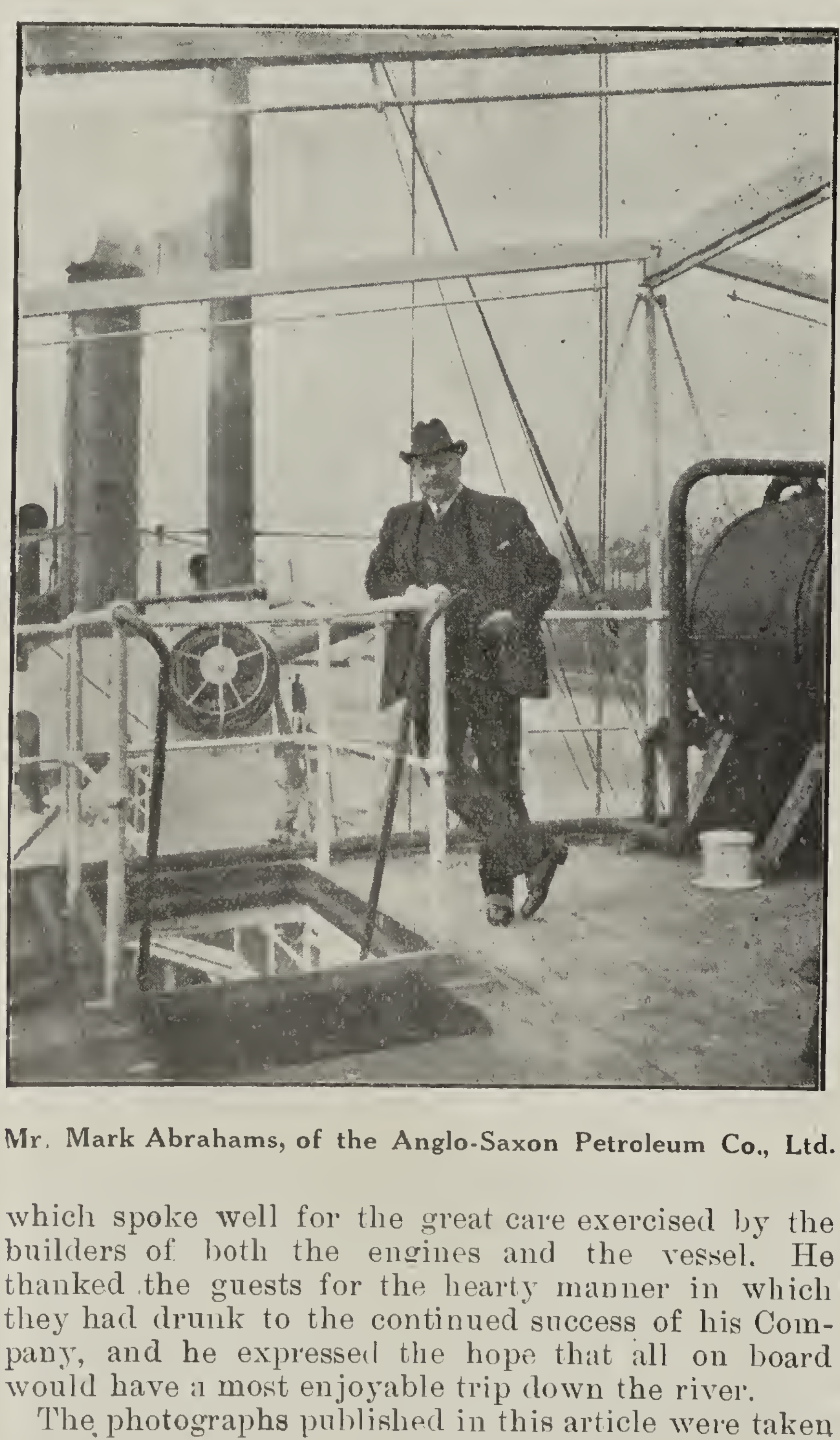
Mr. C. Zulver and Captain Reedeker pose for the "Review" the builders of the vessel or of the engines to the shepherd, for the owners did not want their death ; on the contrary, the owners of the "Artemis" wanted them to live and build a great many more steamers of that sort, because he and his co-directors believed that those motor vessels were to be a great success, and though he did not suggest that they would entirely supersede steam vessels, he trusted Diesel-propelled vessels would in future take a great part in he world's shipping business. That would of course be to their interests, for the owners of the "Artemis" were large suppliers of liquid fuel, and they therefore wished to see as many as possible of those vessels on the seas of the world. There had already been great progress made in regard to Diesel-engined vessels, although he believed such vessels were still in their nfancy of extension. His own Company started with a small boat, then they built a larger one, and afterwards a still larger vessel, while many more vessels had been built on the same principle outside their nterest, and he believed that up to the present moment hey had all been a great success. He therefore asked he company to drink "Success to the builders of the 'Artemis.'"

Mr. Hugo Loudon (representing the Owners) on the right.

The toast having been enthusiastically received,

Mr. J. Muysken (director of the Nederlandsche Fabriek van Werktuigen en Spoorweg Materieel, Werkspoor, the builders of the engines) replied. He said his irm were very thankful to the owners of the "Artemis" for having placed with them the order for the engines or the vessel. They started with the "Volcanus," and fter they had experience of the economical running of that oil-tanker, they placed further orders. At the commencement there was no doubt that the building of Diesel-engined vessels was a risk, not only to the owners themselves, but also to the builders. It was a new field for engineering practice, and, as was to be expected, difficulties turned up which ould not be foreseen, but the representatives of he owners had always rendered valuable help, nd as a result, those original difficulties would not ecur. It was interesting to mention that the Artemis" had been built in the Dutch Royal Navy yard, and in that respect alone she was unique, for he did not think there would be many boats in the oil trade built in a government dockyard. It happened that when the order was given for the vessel the shipbuilding yards were full of work, and so the owners were asked for their permission to allow the vessel to be constructed in the government yards, for the Royal Navy yard was in great need of such work. The directors of the owning Company allowed such construction to proceed in the Navy yards, and the speaker desired to express his thanks to Mr. Deterding and his co-directors for their assistance, for it had enabled the Navy yard to keep all its men employed for a long time. They had turned out a good vessel, and he hoped it would have a very successful career, and he trusted that the Nederlandsche Ind. Tank & Stoomboot-Maatschappij would continue the success which it had achieved from its inception. He also hoped that the Company's fleet would continue to expand, and that other vessels would soon be constructed in the Dutch shipbuilding yards. In conclusion, he asked the company present to drink "Long life and prosperity to the Company which owned the 'Artemis.'"

Mr. Loudon, in acknowledging the toast, said that at the present time the Company had other vessels building in Holland, and he doubted not that as time went on other orders would be given for additional vessels. He was pleased to tell his friends that day that their experience as to the great economy of the Diesel-engined vessels was of a most satisfactory nature. For instance, they had the case of the "Vulcanus," which had been running continuously for seven months, with not more than thirty-six hours for repairs to the engines. Then the running of the tanker "Juno" had been equally successful—a fact which spoke well for the great care exercised by the builders of both the engines and the vessel. He thanked the guests for the hearty manner in which they had drunk to the continued success of his Company, and he expressed the hope that all on board would have a most enjoyable trip down the river.



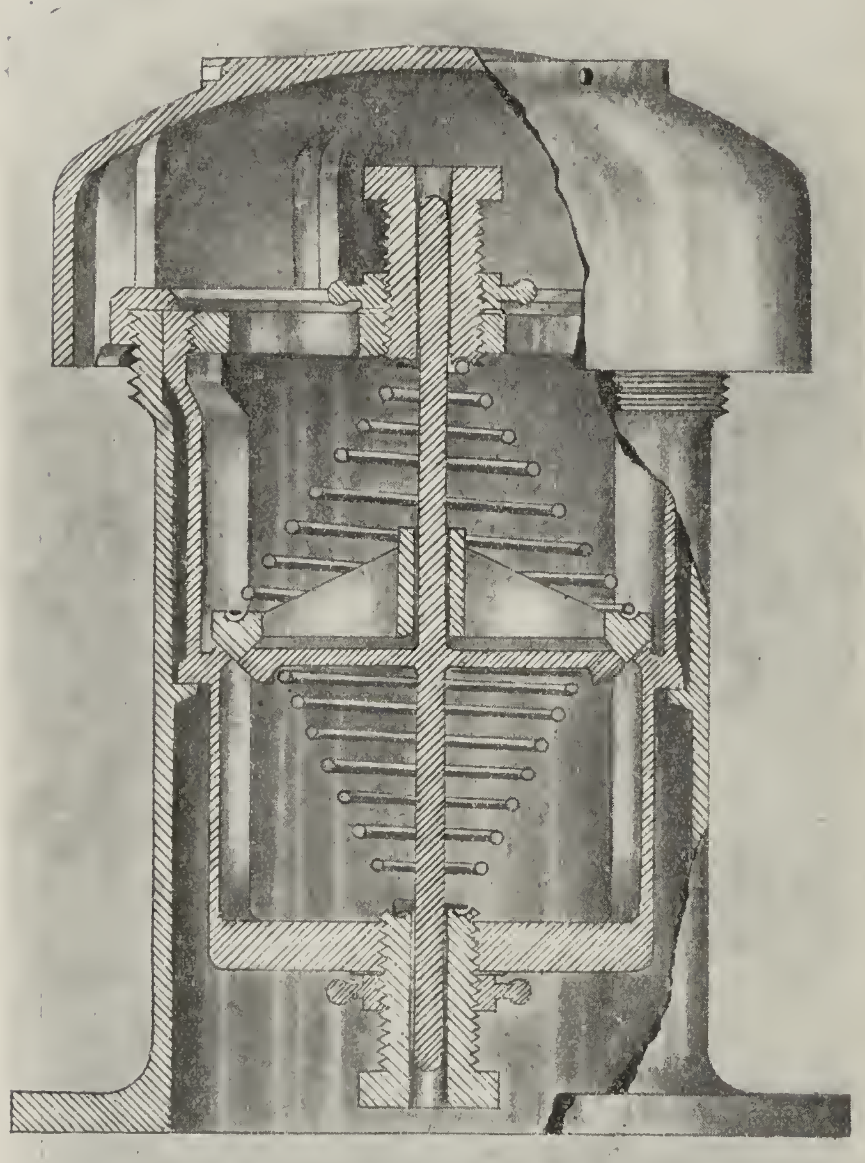
Mr. Mark Abrahams, of the Anglo-Saxon Petroleum Co., Ltd.

The photographs published in this article were taken by the Review representative on the trip.

## BLUNDELL'S "ATMOS" SAFETY VALVE FOR OIL TANKERS AND OIL STORAGES.

An ingenious device is now being placed upon the market by Messrs. Blundell's London Copper and Brass Works, Ltd., London, E., in the shape of a safety valve for use in oil tankers and also for shore oil-storage tanks, and there is no doubt that, when its claims become more generally recognised, it will meet with practically universal adoption.

It is known as the Blundell "Atmos" valve, and is an appliance for the safe escape of any gases accumulated within any tank or vessel to which it is fitted, and being equipped with a safety fire-proof gauze wire screen, it is next to impossible for gases within the tank to become ignited from outside sources. The valve also serves to preserve atmospheric pressure within fuel-oil and other tanks, and does away entirely with the necessity for opening air-cocks or vents when pumping in or out, thereby preventing any collapse or bursting of tank through inattention on the part of the attendant. The "Atmos" valve is entirely automatic in action, the valve opening immediately there is any increase or decrease of pressure in tanks above or below that of the atmosphere, and closing immediately pressure within and without the tanks are equalised.



The degree of sensitiveness to which the valves can be set by means of the milled adjusting screws and locknuts lends itself to practically all conditions of pressure and vacuum relief, while a special and very important feature of the valve is the removeable cage in which the inlet and outlet valves operate, and which can be taken out and the valves accurately adjusted and replaced in a few seconds.

The absolute safety of the "Atmos" valve should appeal to all associated with the carriage or storage of petroleum products in bulk, especially in regard to the more volatile products.

## AMERICAN PETROLEUM EXPORTS.

### Shipments for January.

The exports of American Petroleum products during January and their respective values are given in the following table :—

| Crude Oil— | Gallons. | Values. |
|---|---|---|
| New York | 2,391.651 | $204,382 |
| New Orleans | 2,775 | 111 |
| Sabine | 124,946 | 2,498 |
| Arizona | 890,230 | 35,560 |
| Washington | 373,361 | 7,923 |
| Michigan | 1,109,105 | 45,773 |
| Totals | 4,892,068 | $296.247 |
| Totals for January, 1913 | 14,083,986 | 636,739 |
| Illuminating— | | |
| Maryland | 68,650 | $6,946 |
| New York | 50,512,301 | 3,690,345 |
| Philadelphia | 11,874.289 | 792,532 |
| New Orleans | 3,344,610 | 160.091 |
| Sabine | 11,208,502 | 615,608 |
| Arizona | 79.000 | 15,775 |
| San Francisco | 6,932,105 | 337.748 |
| Southern California | 1,900 | 316 |
| Washington | 8,335 | 1,783 |
| Buffalo | 27,487 | 8,137 |
| Dakota | 95,374 | 4,921 |
| Michigan | 106,759 | 6,481 |
| Totals | 84,259,312 | $5,640,683 |
| Totals for January, 1913 | 91.059.530 | 5,771,070 |
| Lubricating and Paraffin— | | |
| Maryland | 986,836 | $151,019 |
| New York | 13,802,862 | 1,718,110 |
| Philadelphia | 2,613 640 | 343,791 |
| Galveston | 19,751 | 2,136 |
| New Orleans | 236,650 | 91,425 |
| Sabine | 810 | 188 |
| Arizona | 3,120 | 1.122 |
| San Francisco | 108,080 | 18,692 |
| Southern California | 446 | 154 |
| Washington | 24.427 | 11,797 |
| Buffalo | 205,622 | 26.081 |
| Dakota | 74,512 | 11,770 |
| Michigan | 99,470 | 10,285 |
| Ohio | 4,500 | 810 |
| Totals | 18,180,726 | $2,387,380 |
| Totals for January, 1913 | 18,807,960 | 2,685,136 |
| Naphtha, Gasoline, etc.— | | |
| Maryland | 2,184 | $333 |
| New York | 4,127,199 | 656,869 |
| Philadelphia | 7,127 | 1,372 |
| Galveston | 8,250 | 1,260 |
| New Orleans | 69.006 | 11,040 |
| Sabine | 268,018 | 42,597 |
| Arizona | 5,400 | 1,442 |
| San Francisco | 602,768 | 57,622 |
| Southern California | 270 | 61 |
| Washington | 77,217 | 15,046 |
| Buffalo | 456,095 | 44,691 |
| Dakota | 243,711 | 30,800 |
| Michigan | 57,692 | 7,228 |
| Totals | 5,924,937 | $870,361 |
| Totals for January, 1913 | 6,917,623 | 1,113,314 |
| Residuum, Gas Oil and Fuel Oil, etc.— | | |
| New York | 8,845.392 | $346,543 |
| Philadelphia | 3,311,309 | 150,412 |
| New Orleans | 7,334 | 276 |
| Sabine | 11,535,876 | 374,668 |
| San Francisco | 25,672,798 | 449,468 |
| Southern California | 47,309 | 1,416 |
| Washington | 647 | 39 |
| Buffalo | 135,994 | 5,688 |
| Dakota | 92,977 | 3,600 |
| Michigan | 386,086 | 17,195 |
| Totals | 50,035,722 | $1,349,305 |
| Totals for January, 1913 | 34,565,483 | 822,962 |

# THE WORLD'S OIL EXHIBITION.

## A SUCCESSFUL INTERNATIONAL SHOW.

*Additional Descriptions of Exhibits. Full Reports of Lectures.*

To-day the World's Oil Industries Exhibition enters upon the last stage of its run at Earl's Court, London, S.W., and it is safe to say that this first international oil display in this country has been very successful, so successful in fact that we are already assured of another Exhibition—but upon much more comprehensive lines—towards the end of next year.

During the present week, the Exhibition has been particularly well patronised by large numbers of gentlemen prominently associated with the petroleum industry, and the general opinion has been that the whole show is well worthy of the great and growing industry it represents. It would be impossible here to give anything approaching a complete list of those "chiefs" in oil who have spent some time at Earl's Court during the present week; the mention of a few of the gentlemen who passed the Review stand, however, will be interesting. For instance, the visitors have included Lord Murray of Elibank, Lord Cowdray, the Hon. Clive Pearson, the Hon. Harold Pearson, Mr. John Purdy (Anglo-Mexican Petroleum Products Company, Ltd., and allied concerns), Mr. J. L. Tanner and Mr. Smith (Messrs. S. Pearson & Son, Ltd.), Sir Marcus Samuel, Bart., Mr. George Lane, Mr. H. N. Benjamin, Mr. Hugo Loudon, Mr. Fred Lane, Mr. C. C. Tayloe, Mr. J. Abrahams, Mr. R. A. Meyer, Mr. W. Aveline, Dr. De Kok (the Hague), and others representing the Shell-Royal Dutch interests, Mr. F. E. Powell, Mr. James Hamilton, Mr. W. P. Mackendrik, Mr. Alfred Palk, Mr. S. Packham, Mr. C. E. Dudley, Mr. Henry Pollack, Mr. J. W. Frye, and Mr. John Pollack (representing the Anglo-American Oil Company, Ltd.), Prince Tchelokayeff (Baku), Lord Curzon of Kedleston, Mr. L. Steinschneider, Mr. Pilat (chief of the Austrian State Petroleum Refinery), and others.

Several very interesting exhibits have been placed in order since the description which appeared in the last issue of the Review was written, and prominently among these we would mention the exhibit by Messrs. Benkendorff & Co., of Baku. This takes the form of a finely-shaped set-piece supporting transparencies of views of this Company's properties in the Baku district, prominent in the centre being a splendid model of a Russian derrick. Samples of Balakhany and Surakhany oil are displayed, as well as a specimen of the heavy Khurdalan oil having a gravity of ·920. A coloured map to scale of the Apsheron Peninsula forms a fitting centrepiece, upon which are shown the various properties of Messrs. Benkendorff.

Close by is also an attractive exhibit by the Bruenn Koenigsfelder Machinefabrik, comprising a pretty model of a continuous high-vacuum distilling plant for high-grade lubricating oils, as well as a model of a paraffin wax crystaliser.

Messrs. Trauzl & Co., of Vienna, have a very neat show of models of oilfield derricks in operation, while Dr. Day, of the United States Geological Survey, has forwarded a fine relief model of a portion of the West Virginian field.

The illustration reproduced on this page is one of the views of the exhibit of the Trinidad Government, as arranged by the West India Committee. The Trinidad exhibit, in fact, is one of the finest in the Exhibition, and has attracted considerable attention.

It contains a wealth of information respecting the petroleum industry of the island, for, in addition to numerous samples, a large number of photographs convey a very good idea to the visitor of this portion of the British West Indies. We regret that space does not permit our dwelling at length upon this most interesting stand.

The demonstrations during the week of utilising Mexican oil fuel in the Brett patent furnace have been deservedly popular, but especially so was that carried out on Thursday by some representatives of the London Small Arms Company. Upon this occasion six bars of steel as used for rifle barrels, and measuring $1\frac{5}{8}$ in. square by 10 in. long, were utilised, and the heat was so great that the tongs which held the bars melted in four minutes, the steel itself being rendered liquid in seven and a half minutes from cold. The heat generated in the furnace was over 1,400° Centigrade.

## The Steaua-Romana's Exhibit.

The Steaua-Romana, of Bucarest, that well-known and influential company which has done more for the development of the petroleum industry of Roumania than any other enterprise, has a particularly attractive stand in charge of Mr. Eckartsberg.

The exhibit mainly takes the form of a large decorated screen artistically draped in rich yellow and red hangings upon which are placed numerous photographs of the company's extensive properties, refineries, etc., in Roumania. There are almost forty of such illustrations, a study of which gives the observer quite a comprehensive idea of the magnitude of the Steaua-Romana's operations, but the diagram which almost completely covers one side of the exhibit, and which shows the growth of the company's sales of oil for the past thirteen years, possibly more eloquently speaks of the remarkable progress which the Steaua-Romana has achieved. For instance, in 1900 the company's sales were approximately 100,000 tons; seven years later they had grown to 350,000 tons per annum: while for last year the sales exceeded half-a-million tons.

The series of photographic reproductions is one of the most complete we have seen relating to the operations of any oil-producing company. The Steaua-Romana's extensive development in the Campina field is seen from several photographs, together with excellent illustrations of the residence of the managing director there, the club house, hospital, and houses of the workpeople, the company's refinery, storage installation, tank car slidings, depôt for barrels, etc., while other photographs show the more recent developments at Moreni, Runcu, and Chiciura—all of great interest to the oil man.

There are also samples of the refined products for which the Steaua-Romana is so famed, and these include a particularly fine sample of Standard white kerosene, water white kerosene, and gas oil, while a sample of Roumanian residue is also on exhibition as well as specimens of opaque and transparent paraffin wax. The photograph which we here give of the Steaua-Romana's exhibit conveys a fair impression of its imposing and generally attractive nature.

## The British Petroleum Company, Ltd.

By reason of the striking design adopted in th exhibit of the British Petroleum Company, Ltd., th exhibit stands out perhaps more prominently than an other single stand in the whole Exhibition. Th decorative effect has been carried out by a yello background with red lines, the pillars at each corne of the stand as well as the sign which stretches fro one side of the exhibit to the other, being in thes colours. To each of the pillars are fixed numerou escallop shells—the well-known trade mark of th Company's motor spirit, while numerous cans of petr —those familiar red coloured receptacles for "Shell motor spirit are greatly in evidence. Along one side the stand is a large sized model of the tank-steame "Nerite," while facing another main aisle is a particu larly fine collection of shells after which the whole the fleet of "Shell" oil-tankers are named. Practic oil men will be much interested in the section geological strata from one of the wells in Sarawa (British North Borneo), as they also will be in a scal model of a drilling rig and derrick as used on th "Shell" fields in the Far East, the actual plant fro which the model has been made having been manu factured by the Oil Well Engineering Company, Ltd of Cheadle and London.

In the centre of the exhibit is a most artistic cas containing silver souvenir cups, and models of ai craft which from time to time have been presented b the proprietors of "Shell" motor spirit. For instanc there is an exquisite model of the Bleriot monoplan used by M. Pegoud in his exhibition of upside dow flying, and presented by the British Petroleum Company, while another pretty silver model is that presented to the late Mr. S. F. Cody. As is well-known the British Petroleum Company are purveyors of motor spirit to His Majesty King George V.; a fact which emphasises the uniform excellence and purity of "Shell" spirit.

The British Petroleum Company are also calling attention on the exhibit to the economy of utilising their well-known brands of kerosene for heating purposes, and are showing the popular "Reform" heating stoves, which have for years had such an extensive sale not only in this country but abroad.

# EXHIBITION LECTURES.

Full Reports of the Principal Papers Presented During the Week.

## The English Oilfields.

By Mr. J. TARBOTTOM ARMSTRONG.

Yesterday (Friday) week the interesting subject of "The English Oilfields" was down for delivery in the Lecture Hall by Mr. J. Tarbottom Armstrong.

Mr. A. Lidgett presided, and expressed regret at the unavoidable absence of the lecturer owing to illness, Mr. Armstrong's medical adviser having prohibited his attending the Exhibition that evening. In the circumstances, the chairman stated that Mr. Sydney H. North had kindly consented to read Mr. Armstrong's lecture.

The lecture was as under :—

The now ever-present question as to the probable existence of petroleum in this country is of extreme interest and importance, but so far nothing definite has been accomplished and no tangible results have been obtained. Still, in spite of this nebulous state of affairs, it will prove, I hope, interesting to attempt to deduce some practical reasons why systematic search should be made for petroleum in places in this country which show favourable indications.

In many districts in England there have been repeated discussions respecting the presence of petroleum, but whether the oil, if found, will be in large or small quantities, remains to be proved. Even as far back as 1667 signs of natural gas were observed in different districts in Lancashire, near Wigan, and in Hanley, Staffordshire, also in Shropshire, and it has since been proved that there are undoubted "shows" of liquid petroleum as well as natural gas.

Therefore, we may take it that in many parts of this country, at various depths, petroleum of varying quality has been encountered, but as yet no deep drilling and no scientific series of investigations have been undertaken.

There is no doubt, then, that there are a few hopeful signs of petroleum being found in England. Small quantities have been obtained within recent years in North Staffordshire, Yorkshire, and Dumbartonshire, but since 1906 there have been no further developments in these places. Perhaps at this moment it will pay us to examine, somewhat in detail, those discoveries or reputed discoveries of petroleum that have already been made in Great Britain, and I beg of you to give your fullest attention, for it is probably in the following places that the pioneer work will have to be done.

At Heathfield, in Sussex, there is a prolific flow of natural gas, which has been commercially utilised for many years. This has assisted strongly to draw the attention of the public to the question of obtaining oil in this country.

We hear that there is a likelihood very speedily of a deep test well being driven in the Heathfield district under Government auspices, but whether this is only hearsay or not we are unable to say. Geologists who have been over the district report very favourably upon it, and it may be that around the Sussex gas belt oil or oil-clay may be found in workable and paying quantities.

At Kelham, near Newark, in Nottinghamshire, there have been "finds" reported. It is reported that a colliery syndicate boring for coal recently discovered a thick band of sandstone charged with crude petroleum. Sir Boverton Redwood has stated that the oil is true petroleum, but that much must be proved and done before the find of oil can have any commercial importance.

There is no doubt that at Hanley and Mear Hay, Longton, Staffordshire, a considerable quantity more oil is found in the colliery workings than in any other part of the country. The first discovery was made in one of the very deep seams of the colliery at Longton, and in 1874 there was a flow of oil for a week of quite 5 tons. Surely this should have led to further developments, because the commercial importance was fully realised, especially as at that time there was practically no oil coming into this market. The oil that was found was refined and sold for 1s. per gallon. But while a small refinery was established at Hanley, in Staffordshire, it was never practically worked, on account of an explosion of rather a dangerous nature occurring in one of the pits, which caused the workings to be closed down for a considerable time. When the pit was re-opened, it was found that the oil had found its way partly up the coal shaft, and when the mining operations were continued the supply of oil produced was about the same volume as that which previously took place. It seems a great pity that again there was an accident in this pit, which caused it to be closed a second time, on account of the shrinking of the shafts, and this prematurely brought to an end the experiment of producing oil.

To show that this was a likely district, some time after this in another pit at Mear Hay, not far from the Longton deposit, oil was again discovered, and the refinery that had been previously started at Hanley refined a considerable quantity of this oil for some time; in fact, they did so until the mine had to be given up owing to the working of the coal seam ceasing. Again and again oil has been discovered since in the North Staffordshire coalfields, but no practical or serious attempts have been made to exploit it, and at the time these discoveries were made oil had not got the market possibilities that it has to-day.

A good many years ago now, in our Shropshire coal mines, and long before petroleum was generally known, oil was observed by the miners running down the seams of coal. It was always understood by these miners that the oil came from the coal, instead of, as was really the case, coming from the rocks above, therefore it was called "coal-oil."

At this time it was fully believed that coal and oil were of the same origin, which is the reason for the name of "coal-oil" so generally used then, and it was not until large petroleum deposits were discovered in America that this theory was disproved, as in America it was seen beyond doubt that the surroundings of coal were entirely different from those of petroleum. In spite of this, even up to the present day, in the mining districts, it is fully believed that petroleum is a coal-oil.

A borehole at Willesden was commenced in January, 1912, primarily to find water, and on September 6th of the same year, when it had reached a depth of 1,200 ft., the presence of oil was encountered. Then this boring was continued, and a large quantity of salt water was obtained, mingled with small quantities of oil. As the borehole got deeper, there was an increased quantity of oil produced. We believe that these experiments have been continued since, but with what results we do not know, although it would be very interesting to learn.

Kimmeridge Clay.—This clay, or rather shale, so strongly brought before the public notice by Mr. Churchill, is said to be a potential source of oil fuel for the Navy. But we have as yet little reason or encouragement for falling back on the possible quantity to be derived from the Kimmeridge Clay, as foreshadowed by Mr. Churchill. The formation, no doubt, has a wide range, extending from the coast of Dorset to that of Yorkshire, and in places contains bitumen and carbonaceous matter, from which mineral oil has been obtained by distillation; but it is doubtful if the quantity of oil obtained could pay the cost of production.

It is stated that this outcrop extends, as we have already said, from Dorset to Yorkshire, averaging from two miles to twenty miles in breadth. It dips south-east and underlies the cretaceous system, as well as the upper members of the oolites. At the historic boring which was carried out near Battle, in search of coal, the Kimmeridge Clay proved to be about 1,500 ft. high

It has been long known as possessing high fuel qualities, and at the village of Kimmeridge, on the Dorset coast, it was mined for a number of years for fuel purposes. As coal grew cheaper, however, it dropped out of use.

It has been understood for years that the impregnating bituminous matter might be commercially valuable, and many experiments have been tried to extract it, but as the deposit does not yield any by-products of value, as is the case with Scottish shales, it has come to be considered as unprofitable from a commercial point of view.

This Kimmeridge shale yields in some places as much as 50 gallons of oil per ton (good Scotch shale yields from 30 to 60 gallons per ton), but, unfortunately, they are so high in sulphur content as to be practically useless for fuel purposes, the sulphur being held in a form that defies the usual methods of purification. Of course, this objection may possibly be entirely overcome in time, and already something has been accomplished in this direction.

It should be noted, however, that the term "Kimmeridge Clay" applies to a characteristic geological series, and does not mean that the whole extension and thickness contain bituminous carbonaceous matter to justify indiscriminate exploration, but that there are beds that would pay handsomely to work under modern conditions is the opinion of a number of men well qualified to give an opinion. With a tithe of the money spent on experiments with and in proving the value of the Scottish shales a great deal could be done, and when samples can be obtained giving 67·25 gallons of crude oil, there is every inducement for whole-hearted enterprise.

An optimistic study should be made of the Kimmeridge Clay from Dorset to Lincolnshire. Granted that there are immense deposits, and as far as I can find, many of the deposits give a fair percentage of good oil, though generally the yield is small, it seems to me that Kimmeridge Clay is worthy of particular notice.

It would never do, in a paper of this nature, not to include the Scotch oil shales. The oil shale industry of Scotland, carried on by five companies, is important. The total output in 1911 was 3,116,803 tons of shale, valued at the mine or quarry at £857,120. The mineral is obtained chiefly in Edinburghshire and Linlithgowshire. The average yield of oil is 25 gallons, and of sulphate of ammonia 45 lb. per ton of shale.

In an interesting book, recently published, on the "Story of the Forth," by H. M. Cadell, of Grange, this gentleman makes some pertinent remarks with reference to the Scottish shale oil fields, showing how the industry has grown up and extended. This is a very interesting subject to the writer of this paper, for when he was an assistant and student in Dr. Wallace's Laboratory, at Glasgow, he assisted in the starting of this great industry.

In this work Mr. Cadell makes an important statement, which is surely an indication of petroleum deposits. This statement is made when Mr. Cadell is referring to natural liquid oil :—

"In a few places a little natural distillation took place in past geological ages, and crude oil as well as mineral wax is sometimes found in small quantities in the rocks ready made. At St. Catherine's, near Liberton, to the south of Edinburgh, there is an old well in which the water is covered with a thick skin of petroleum derived from a minute spring exuding from the oil shales below. This is known as the "Balm Well," and was highly valued for its curative properties for centuries before the Edinburgh Medical School had become famous. In the Broxburn district and elsewhere the oil shales have been invaded by local intrusions of heated basaltic rock, and it is a matter of common observation that the cavities and cracks in the basalt contain bitumen, mineral wax, or even liquid petroleum. An actual oil spring was discovered in one of the mines to the Dunnet shale recently opened at Broxburn. A little dark-coloured thick oil was found trickling out of the cracks in the eruptive rock, and while it lasted was regularly collected and used. Wherever the shale has thus been robbed of its kerogen, it is, of course, rendered worthless, and indeed, there are places where large intrusive sills or beds of basalt have entirely destroyed the value of the adjacent shale field."

While speaking of the Scottish oil shales it will be interesting to recall that it is only quite recently that a discovery of oil shale has been reported from the Island of Skye. The deposit was located by Mr. G. W. Lee, D.Sc., a member of the scientific staff of the Scottish Geological Survey, and appears to cover a considerable area. Samples were taken and tested, and the oil contents were found to be too low to admit of profitable working. But as the samples were taken from the outcrop, which was naturally "weathered," these tests cannot be regarded as conclusive. We look forward with keen anticipation to further news from this district.

Oil shale is not peculiar to Scotland, as it is known to occur in England and Ireland as well, and why I have spoken rather fully of shale is because petroleum, which is a compound of carbon and hydrogen, occurs either in the fluid, solid, or gaseous state, these all resulting from practically the same processes of formation, and if one class is found here, why not prove whether the other is existent or not?

There is no doubt that if you take a map of the world, and start to find out the discovery of oil in the world, there is nothing definite indicating the line that could be drawn through the oilfields, stating that there is a likely chance of this oil coming through Great Britain, but there are such things as faults in such a supposition that make it worth while to try and prove thoroughly whether there are indications of oil. Even taking out the question of the fact that the oil line does not come through England, it is worth while to do a little prospecting work, seeing we have certain indications of oil in this country.

The question then arises as to who is to do the work. It will be difficult to find prospecting companies bold enough to sink capital in a proposition of this description in this country, and people go against the theoretical fact, and are always driving it into you, that where there are large coal deposits there is not likely to be any oil. But you must remember that the composition of oil and coal are practically the same. It is only a question of different proportions, and we contend that it wants proof, and definite proof, too, that in such a country as this, rich in coal, it is not an impossibility for it also to contain oil deposits which will prove commercially workable.

If we take America, it has quite as enormous coal propositions, if not more so, than we have in this country. It has also enormous oil deposits. Certainly, many of them are a long way from the coalfields, and America is a larger country than this one. Still, it wants proof that the oil belt does not pass our country under the sea before it reaches the fields that are in America.

So far we are certainly not working on a definite basis, only theoretical, but the possibilities are so enormous, and of such importance to this country, that it is worth proving that we have, or have not, oil-producing districts of importance, and the matter resolves itself simply into a question of whether it would or would not pay the British Government to thoroughly test the matter in a practical manner.

In view of the pressing oil supply problem in this country, which, I am sorry to say, shows no signs of solution one way or another up to the present, and looking at the very largely increasing demand, surely a systematic, thoroughly scientific, and (I lay great emphasis on this) practical survey of this country, as to its mineral oil resources, should, without one moment's delay, be made, and if the Government does not immediately give its full attention to this important subject, surely the London and local Chambers of Commerce should constantly bring it before their notice.

Oil shale is not peculiar to Scotland, as it is known to occur in England as well, and why I have spoken rather fully of shale is because petroleum belongs to the so-called bitumen family, which is a compound of carbon and hydrogen occurring either as fluids, solids, or gases, these all resulting from practically the same processes of formation, and if one class is found, why not prove whether the other is existent or not?

Surely the districts we have mentioned show indications worthy of being followed up.

Should it not be the policy of the Government to put aside a little money to prove, for instance, a deep test well through the rock salt, say, to about 4,500 ft. This I have not seen suggested before, and is an idea worthy of consideration. If you take, for instance, the salt that is being mined just beside Middlesbrough, and we believe they are down 1,700 ft.; now keep sinking this in the effort to find oil, as they do in the Pennsylvania fields.

We are well aware that oil experts would say there is no chance of getting any oil on account of the formation, but in the oil world there have been so many proofs against the experts, and it is of such importance to the industry of this country, that the Government, or a special body, should be deputed for the purpose of going further into this question.

The saline waters associated with petroleum are always interesting, and I have myself repeatedly seen oily substances, resembling petroleum, on the coast of Sweden, and I would like to emphasise the fact that the salt deposits in this country may be districts where it is worth while looking for oil.

In the Pennsylvania fields, near Derrick City, not far from Bradford, Pa., there was a thick formation of salt; in fact, it was very thick. The entry of the drill into the bed showed that it reached the upper Silurian strata. There was no indication to show that they were approaching the Clinton and Medina oil sands, and, of course, if they met these it would be a good indication of oil.

In New York State the same indications have been found, the depth in which it has been met with in this test well is indicative that they are approaching the hollow oil formation. The depth of salt in the New York State was from 1,000 to 1,300 ft.

Where, in proximity to salt in this country, we should come across the formations in the red shales of the Salina of the upper Silurian and, following this, get into the oil sands, is a question, not of theory by oil experts, that is, geographical experts of the district, but is a question simply and solely of trial and experiment. The question, therefore, is, Are there not enough indications to warrant the expenditure?

The question of oil in Great Britain is of paramount importance, not only to the British Government, but to the commercial enterprise of this country. What is wanted is some reliable basis to work upon, and the first thing to do to get such a basis is to have a concise account of what has already been done, and from such a statement adduce a basis whereby more thorough investigations may be carried out.

The British Government should put to work a petroleum expert at once and his instructions should be to look out for the virgin areas of what is considered a petroliferous nature, and concentrate his energies in proving the existence or non-existence of the commodity for which he is seeking.

The object of this paper is to draw the attention of the authorities (who do nothing to prove matters one way or the other) to the possible discovery of oilfields in the British Isles, and, if nothing else, giving their attention to the colliery workings of the Mear Hay collieries, for the quantities of oil obtained there were so high that it is doubtful if any parallel can be found so far as England is concerned. If 5 tons per week could be found in 1874, surely, with the special knowledge that we now have, this insignificant output should be increased.

You must understand that when this discovery was made there was no foreign oil coming into this market at all, and refined oil was selling at as much as 1s. per gallon. Although from that date up to the present time oil has been continually discovered in the North Staffordshire coalfields, no serious attempt has been made in any way to exploit it.

In any attempt to discover the genesis of petroleum the quantitative adequacy of the proposed source must be taken into account. In such an inquiry superficial observations are deceptive, for one is apt to overrate the visible and productive accumulations which furnish the oils of commerce. In a question of the oil likely to be found in this country, I do not think we have made sufficient geological survey. There is no doubt of the fact that disseminated petroleum is well-nigh universal, and we have neglected in this country the limestones which are generally impregnated in other countries with traces of bitumen, because they seem at first sight to be insignificant, but which really represent enormous quantities.

I will give you an instance of what I mean, which happens in other countries:—

"In the Mississippian (sub-carboniferous) limestones of Kentucky petroleum is generally absent. If it amounts to only X 0·10 per cent. each square mile of rock, with a thickness of 500 ft., it would yield about 2,500,000 barrels of oil. Even more striking are the figures given by Sterry Hunt in 'Chemical and Geological Essays.' He estimates that in the limestones of Chicago, with a thickness of 35 ft., there are 7,743,745 barrels of oil to each square mile of territory. Figures like these, together with the computations previously cited, made by Szajnocha, relative to Galician petroleum, lead to the conviction that the formation of bitumen is a general process and by no means exceptional.

"Wherever sediments have been laid down, enclosing either animal or vegetable matter, there bitumens may be produced. The presence of water, preferably salt, the exclusion of air, and the existence of an impervious protecting stratum of clay, seem to be essential conditions toward rendering the transformation possible. Seaweeds, molluscs, crustaceans, fishes, and even microscopic organisms of many kinds may contribute material to the change."

I throw this out simply as a hint, and perhaps worth looking into, for on this class of problem the geologist and the palæologist must work together. Why is it that we have not got in this country, seeing of what great importance oil is, the careful and scientific methods that have been for years introduced into the study of, say, the oilfields of the United States? There the structural conditions have been worked out to the greatest accuracy.

Seeing the large amount of borings and excavations that have been made in this country for coal and other propositions, it is a great wonder why it is that Government maps have not been prepared having reference to the underground strata, which would lead to a thorough scientific examination of whether or not there was any chance of obtaining oil.

Surely these should be mapped out in the manner indicated by geologists and others prior to exploration. Seeing what great service these have proved to other countries, and how often oil has been located in places which were usually considered barren, is it not well that our Government should give their greatest attention to this matter?

There is no doubt, and I state it without fear of contradiction, that I believe this is the first time it has been publicly stated that in Norfolk there is every indication of anti-cline.

Mr. Churchill's statement that "there is plenty of oil," is a most ambiguous remark, for nobody actually knows the amount of oil lying dormant within the earth's crust.

The Baku and Pennsylvania oilfields are giving out at a most abnormal rate. The yield is now under half what it was ten years ago. This shrinkage is made good by increased exploitations of new sources of supply, and these sources are being tapped at such feverish speed to meet the enormously increased demand, that they will soon be dried up. The ever-increasing demand for liquid fuel is truly remarkable, and this is bound to become more and more intensified in the near future, if not choked off by consequential increase in price.

However, the possibility of winning oil in the British Isles from low-grade fuels is certainly great. This fact has been brought before the Naval Commissioners, who studiously ignore the matter, preferring to build thirteen specially constructed oil-freightage ships, and erect numerous oil-storage tanks at an expenditure of some £2,000,000, when there are billions of tons of raw materials lying idle, and thousands of people wanting work at home.

Rapidly as the supply of oil has expanded, it has scarcely succeeded in keeping pace with the demands for power in new forms. We can use all our coal and all our oil. The oil age means less the displacement of coal than its more scientific use. Already the increased price of oil is threatening to remove that fuel out of the category of the economical sources of power where the cost per horse-power is the primary consideration.

At the conclusion of the reading of the lecture, a hearty vote of thanks was passed to Mr. Armstrong for his valuable contribution, at the suggestion of the chairman, and a hope expressed that he would speedily recover. A similar vote of thanks was also tendered to Mr. North for having read the lecture.

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# Work on a Russian Oilfield.

By Mr. G. HOWELL, F.G.S.

Mr. Geo. Howell, F.G.S., was the lecturer on Saturday evening last, when he chose for the title of the lecture "Work on a Russian Oilfield."

Mr. E. R. Blundstone presided, and in introducing the lecturer, expressed the hope that Mr. Howell would have some interesting information to impart which would bring the available knowledge of the work on a Russian field up to date.

The lecturer, after explaining that his lecture would be illustrated with special slides and films in order to relieve a most technical study of much of its dryness, proceeded to say :—

In the first place, it may interest the general public to know what the compound of crude oil is. Briefly, it can be divided into three physical divisions, *i.e.*, high oils, with specific gravities of 0·650 to 0·737; burning oils, with specific gravities of 0·780 to 0·860; and heavy oils, with specific gravities of 0·860 to 0·960, with its residuum and by-products, such as vaselines, paraffin waxes, etc.

The crude oil is generally referred to as hydrocarbons, the element of carbon predominating, with small percentages of oxygen and hydrogen, often referred to as the impurities in oil.

As the chemical treatment of oil is a profession in itself, and, in fact, the most important department in the oil industry, I will leave this side of the industry in more capable hands.

### Topography.

The topographic and physiographic studies, when prospecting an oilfield, are most important, as they often affect the economical side of the work so dear to the heart of an investor. The physical features and the modification caused thereby of the surface ground, as well as of the climates, life, etc., where operations are about to be started, are considerations which no prospector can afford to overlook.

Further, a prospector must accurately inform himself of the geographical position, and profile or contour of the country in which he proposes to work, as the study of profile often is most instructive, and affords many explanations to an engineer when searching for the "treasure-trove" of oil lakes, hidden as they are from view in the deeper sections of the earth's crust. The next, but equally important, study, is the geological and petrographical nature, or science of the earth's crust, *i.e.*, the determination of the constitution of the rocks, their chemical composition and structure, especially the internal structure, and substances which compose the strata. Further, it is important to consider the relations of the various strata, position, dip, and history, together with the successive changes that have taken place in the organic and inorganic kingdoms, the age of each stratum being principally determined by the flora and fauna found there.

When these three are studied and mastered, then the corresponding or genetic relationships of strata to other oil territories can be considered, a study which is equally essential when estimating or determining the value of a new or virgin oil area.

I propose now to deal with the geological characteristics of the various oilfields—recognised oilfields in the Russian Empire. The two principal fields are Baku and Grosny, then Cheleken, Kertch, and Kuban province. The Ural province, on the north side of the Caspian, is also under active development, while the Batjali peninsula, just east of the island of Cheleken, augurs to become a rich oil producer. The Kuban province, including the Taman peninsula, seems destined to become prominent in oil production, as vast stores of petroleum exist under the surface strata. The province of Tiflis, including the Tegnach district, Chatma area, contains a geological formation unique for oil storage, while the indications point to prolific oil-containing layers. The oil zones in Russia are either contained in the Caucasian provinces, or immediately associated with them, excepting, of course, the new Ural area, Cheleken, and Batjali peninsula. In our studies we find a strong similarity of structure to the Carpathian strata, and many geologists state that there is a strong genetic relationship existing between the Carpathian series and the series travelling west to east, through Kertch, under the straits and across the Caucasus range, taking in the Kuban, Tiflis, including Signach, and Baku, where the fields have been worked and oil produced in enormous quantities.

By comparison of these studies the determination can be carried farther. The Caucasian mountains and the Turkomano-Horosan highlands in Transcaspia, which have been caused by tremendous earth movements, are connected by a stratum lying at the bottom of the Caspian Sea, travelling east through the island of Cheleken, and appearing in the Batjali peninsula.

In the centre of the Caucasus we find strata of the jurassic period, a period when Turkestan remained a continent, overlapped by the cretaceous series analogous to Stromberg. The cretaceous series are strongly in evidence at Novorossisk, the rocks on the north-east coast of the Black Sea forming an escarpment, dipping, and disappearing under its waters, forming the bed on which rests the oil-containing layers of the Caucasian oilfields. This formation will be pictured on the screen later.

The whole province of Baku, *i.e.*, Puta, Djenghi, Ahdsykabul, and Alia, further bear out my opinion, showing strong genetic inter-relations with all the oilfields of Russia referred to above and the Carpathian oil-containing strata.

At Ahdsykabul, where the river turns suddenly to the south, and near the railway, we come across thick beds of sandstone, which are analogous to the Kertch formation, and this formation again is found to be analogous to the Carpathian formation. Further, we find the green saliferous clays, the associates of the oil-containing strata. At Alia we have other beds exposed, such as the grey plastic clays, interlain with sand and sandstone layers. The formation here is striking, as the strata disclose the true oil-containing sands of the Caucasus.

Further north the indications become less convincing, but at Puta the oil-containing strata become better, some of the beds having a thickness of over 300 ft. Here, as in other parts of the Caucasus, we find geologic and petrographic consistency throughout and analogous to the Carpathian series. The surrounding hills of Baku are covered with the Kertch series, and saliferous green clays, analogous to other fields, are found.

All over the oilfields of Russia depositions of kir, *i.e.*, petroleum that has migrated to the surface and become oxidized, are met with. These oil outcrops are nearly always accompanied by hydrocarbon gas. Demonstration of what I mean will be given by several slides at the close of the lecture. The gas is sometimes used for power and heat. The tertiary epoch is the most prolific oil-containing strata, just as the jurassic age is favourable to lead, iron, and zinc, but, nevertheless, it does not follow that when you have a certain formation that necessarily oil contents will be found.

If we go to Canada, Ohio, and other parts of America, we find the oil zone contained within the carboniferous, and so on, but experience tells us that the miocene, oligocene, and eocene series of the tertiary epoch are and do contain the larger oil reserves known in any part of the world. In determining the value of an oilfield, particularly in Russia, where deep boring has to be resorted to, the engineer must make himself conversant with the folding, the anticline, or syncline structure of the rocks in which the oil is contained, as most of the failures can be registered under the heading of "Imperfect knowledge of the field," inasmuch as the foldings and dips of the rocks have not been accurately determined. There has been no greater illustration of this cause as the Maikop field, a field which, now the geological structure has been more determined, will still prove itself rich in oil contents.

No one geologist, engineer, or prospector can accomplish a perfect knowledge of an oil territory by himself; it is the associated knowledge, refined to precision, a production of systematic and careful investigation, surveyed and dealt with by a practical head; then and then only will work on a Russian or any other oilfield prove productive. As geology is a combined or compound science, so also is a profound knowledge of the structure of the earth's crust the combination of many brains, each differently departmentalised.

Now we come to the economic side of the oil industry, that is, the various depths at which the many oil horizons will be met with. After the knowledge, which may be classed as the super-

(*Continued on page* 399.)

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| ,, Roumanian | 6,700 | ,, Terek ... | 5,200 | ,, Rock Light... | 4,100 |

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 13/0-14/0 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 1-1⅛ |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | 9/16-11/16 |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319.181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 32/0-33/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 39/0-40/0 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | 9/16-11/16 |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 21/9-22/9 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 3/9-4/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1¼-1⅜ |
| ,, ,, Ord... | 690,000 | fully pd. | 13/9-14/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5-5 1/16 |
| Pref. | 2,000,000 | £10 | 10¾-11 |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/3-22/9 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Latest Quotations. Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 700 | 703 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,400 | 3,425 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 255 | 257 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,300 | 19,350 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,000 | 1,002 |
| Russian Naphtha Society ... ... | 100 | 216 | 217 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 210 | 212 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/– pd. | 235,000 | £1 | 32/9 |
| ,, 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 90/0 |
| ,, Pref. ... ... ... | 250,000 | £1 | 27/9 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| ,, 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/4½ |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 40/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 34/6 |
| ,, Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/– paid) ... | 110,500 | 17/– | 5 3/16 |
| ,, 6% Cum. Pref. ... | 100,000 | £10 | 26/6 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/9 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 66/3 |
| ,, "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179½ |
| ,, ,, ,, ,, Pref. ... | ,, | 181 |
| Royal Dutch Petroleum Co. ... ... ... | ,, | 601½ |
| Moeara Enim Petroleum Maatschappij ... | ,, | 234 |
| Perlak Petroleum Maatschappij ... ... | ,, | 36⅞ |
| Sumatra Palembang Petroleum Maatschappij | ,, | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | ,, | 36¼ |
| Tarakan Petroleum Maatschappij ... ... | ,, | 123 |

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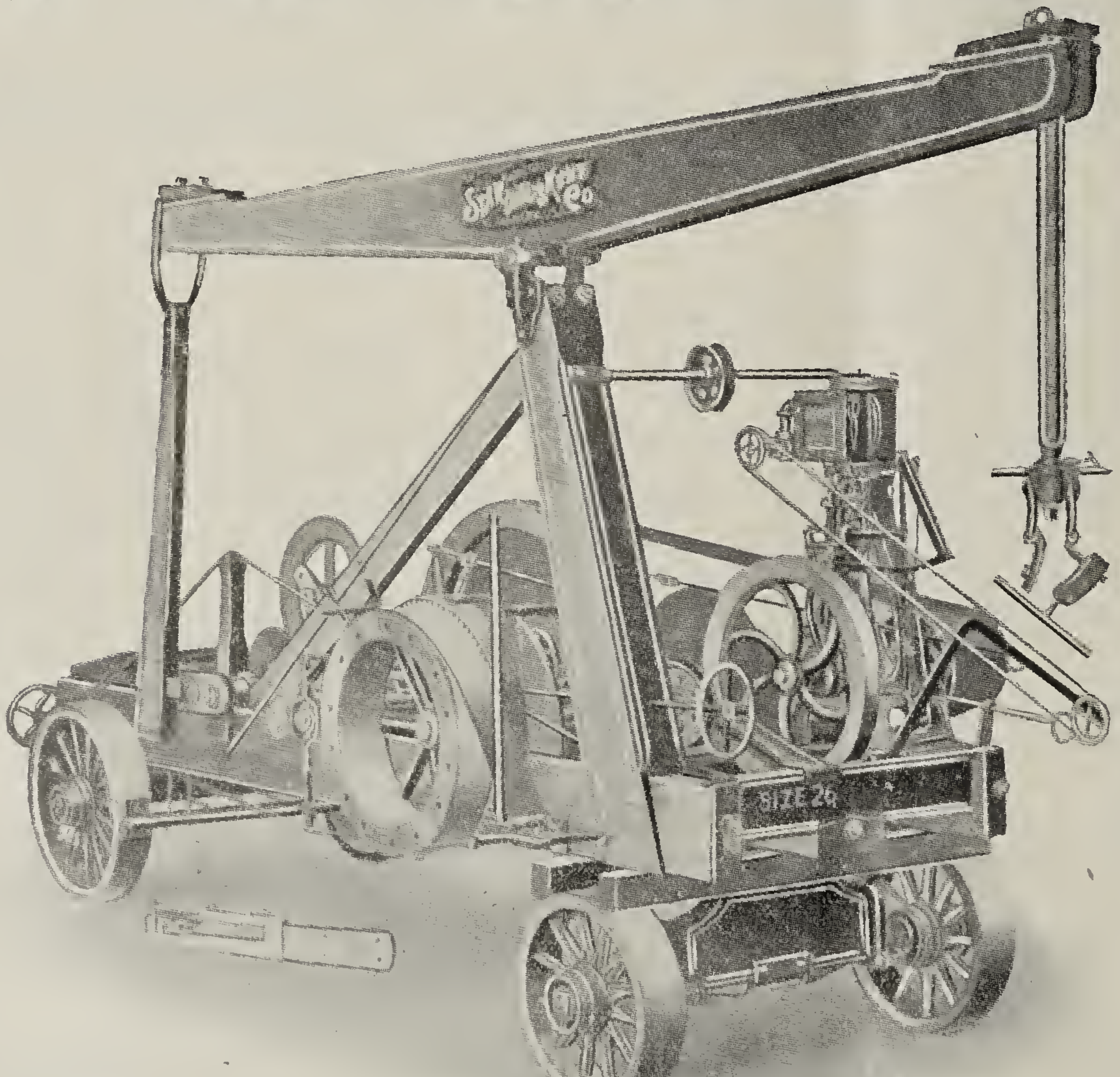

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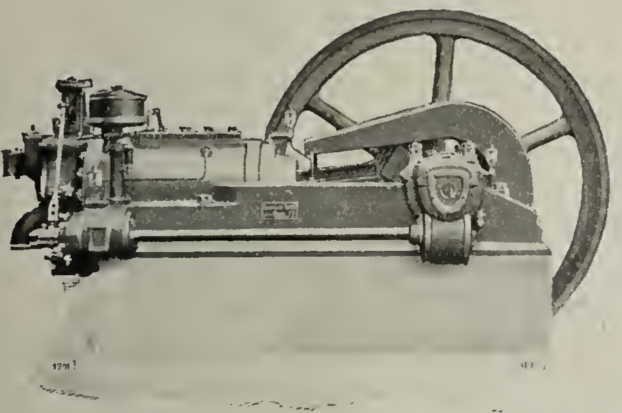

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, APRIL 4TH, 1914.

## THE OIL PROSPECTS OF ARGENTINE.

IN scarcely any part of the world are the vast stores of undeveloped oil wealth receiving such serious attention as is to-day being concentrated upon the petroleum deposits of Argentine. The subject has been referred to upon several occasions in the REVIEW, but at the present moment it is interesting to pay more than passing attention to it, for without doubt Argentine has a great future before it, not only as an oil-producing but also as an oil-consuming country. It is no exaggeration of fact to say that at the present time a wave of serious drilling activity has swept over the Republic in regard to the exploitation of its petroliferous deposits, for almost every day new wells are being brought in giving an oil which, though it cannot be considered of a high-grade quality, is nevertheless far superior to the product which was first supposed to be typical of Argentine oil.

Some time ago, as is now generally known, the government appointed a committee of engineers to examine and report upon the petroleum springs at Commodoro Rivadavia, in the territory of Chubut, in the extreme south-east of the Republic, and their report was optimistic as regards the future supply. The government, therefore, installed modern machinery and appliances for operating the existing twelve wells, which have an average depth of over 1,500 feet, and whose joint yield is estimated at over 5,000,000 litres per month.

With a view to pushing forward developments as rapidly as possible, and also to secure for its own needs an ample supply of oil, the government has reserved for the state 5,000 hectares of land, 350 of which are now in course of exploitation. A refinery is also being built for the purpose of treating the crude oil, in order to make it suitable as fuel for warships. Private enterprise, however, is assisting in the development of the Republic's oil industry, for at the present time there are eight companies engaged in the fields.

According to Dr. Pardo, the Consul-General in Argentine, recent investigations proved the existence of petroleum in the north-west regions below the western slopes of the cordillera of the Andes, running between Chile and Argentine, more especially in the provinces of Mendoza and Jujuy, in the extreme north.

Oil was first discovered in Argentine by engineers who, for some time prior to 1908, were engaged by the government to explore for water the Atlantic coast regions of Chubut, an arid waste, particularly in the district of Commodoro Rivadavia, on the Gulf of San Jorge. After having bored for considerably over 500 feet and discovering little water, larger and deeper borings were undertaken, and to the astonishment of the engineers oil appeared.

Concessions of land in Argentine cannot be bought outright. Grants are made only for specific periods, on terms agreed upon. The oil lands, like other minerals, belong to the national government, and by the mining laws and regulations enacted and published in 1911, the following procedure is necessary :—The applican whether native or foreign, must sign and submit a forr of application, stating the precise locality and the state c province in which he intends to explore. Permission i readily given to reputable and honest applicants, afte proving financial stability. An option of 300 days i then given for exploration purposes, but actual operations must be commenced within thirty days followin the permission. On the discovery of evidences of o the applicant must immediately inform the governmer officials, and make an application for an authoritativ concession to proceed with the operations ; and whe oil has been actually discovered to a promising exten terms have to be agreed upon for the payment of royalty or tax on the output, according to the quantity If the applicant fails to proceed with operations withi the thirty days, the concession will be considered a abandoned, and unless the applicant gives notice to th government of such an abandonment, he will be hel liable to pay a penalty of from $50 to $200.

Following upon the particularly optimistic report of the petroleum fields of Argentine, it is nc surprising to find such a great development in the nov proven oil regions, for from the point of view of th consumption of petroleum products at home, th Republic offers vast opportunities for a most successfu future of its young petroleum industry—an industr which from the start will have the whole-hearte support of the government.

◆

## THE PETROLEUM TRADE OF BATOUM

### Statistics for December.

THE total imports of petroleum products into Batoun during December amounted to 4,902,549 poods, tota exports abroad to 2,335,248 poods, and the total export inland to 132,118 poods. The following table show the details of the imports to and exports from Batoun during December, as well as the quantities in store o the 1st of January :—

| | Imports. Poods. | Exports. Abroad. Poods. | Exports. Inland. Poods. | In store o January 1s Poods. |
|---|---|---|---|---|
| Kerosene ... ... | 2,822,848 | 1,250,094 | 121,131 | 3,503,23 |
| Lubricating oil ... | 1,582,843 | 396,645 | 9,043 | 2,447,17 |
| Residuals ... ... | 420,640 | 663,621 | 1,374 | 399,29 |
| Crude oil ... ... | 76,218 | — | 570 | — |
| Other products ... | — | 24,888 | — | — |
| Totals ... | 4,902,549 | 2,335,248 | 132,118 | 6,349,70 |

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MARCH 30th, 1914.

[All Rights Reserved.]

IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | From Jan. 1. | Since Mar. 23. | Fr Jai |
| **Belgium** .. | — | — | 10.770 | 158.830 | — | — | — | — | — | 32,220 | — | — | 80 | 1,350 | 10.850 | 1 |
| **Canada** .. | — | — | — | 4,400 | 2,600 | 26,180 | — | — | — | — | — | — | — | — | 2,60 | |
| **Dutch Indies** | — | — | — | — | — | — | — | — | 884,800 | 14,592,070 | — | 83,400 | — | — | 884,800 | 14,6 |
| **Germany** .. | — | 25,050 | 21,720 | 655 250 | — | — | — | — | — | — | — | — | — | — | 21,720 | 6. |
| **Holland** .. | — | — | — | 2,680 | — | — | — | 55,000 | 25,000 | 2,411.180 | — | — | — | 590 | 25,000 | 2,4 |
| **Mexico** .. | 22,540 | 2,242,970 | — | 11,800 | — | — | — | — | — | 754,170 | 26,330 | 2,332,310 | — | — | 48,870 | 5,3 |
| **Roumania** .. | 699,560 | 5,442.910 | — | — | — | 875,000 | — | — | 201,500 | 1,184,880 | — | 1,207,910 | — | — | 901,060 | 8,7 |
| **Russia** . | — | 1,495,760 | 661,100 | 1,689,370 | — | — | — | — | — | 5,127,880 | — | — | — | — | 661,100 | 8,3 |
| **U.S.A.** .. | 3,124,230 | 28.626,770 | 2,987,130 | 12,755,060 | — | 37,190 | 1,641,680 | 21,776,140 | — | 2,600.410 | — | 1,862,530 | 5,810 | 156,340 | 7,758,850 | 67.8 |
| **Other Countries** | — | — | 24,840 | 118,320 | — | — | — | — | — | — | — | 4,150 | — | — | 24,840 | 1 |
| | 3,846,330 | 37,833,460 | 3,705.560 | 15.395,710 | 2,600 | 938,370 | 1,641,680 | 21,831,140 | 1,111,300 | 26,702,810 | 26,330 | 5,490,300 | 5,890 | 158,280 | 10,339,690 | 108,3 |

# NOTES FROM THE OILFIELDS.

## MERICAN.

**Another New Refinery.** — The Imperial Oil Company, erating a large oil refinery in Sarnia, Ontario, Canada, has decided build a large refining plant at Port Moody. B.C.

**Cape Breton Mineral Resources.**—In a report to the Bureau Foreign and Domestic Commerce, Consul Charles Freeman speaks couragingly of the Island of Cape Breton as containing large developed oil resources.

**Preparing for Activity.**—There are great preparations for tivity during the coming spring and summer months in the entucky regions. The past winter has witnessed more leasing of nd than ever before, and already sufficient drilling is in sight for very active summer.

**More Absurd Prosecutions.**—The Waters-Pierce Oil Comny has been before the Federal Court upon fourteen counts arging it with having violated the Elkins law in making rate ncessions during the years 1904–06, and it was fined $1,000 on ch count. Notice of appeal was given.

**Over-production in the Mid-Continent Fields.** — The enace of over-production is again to the front in the Midntinental fields, due to the development of the Bartlesville sand the Cushing region. In this sand there are now over twenty ells drilled, bringing the output of the field to nearly 50,000 rrels daily.

**The Union Oil Company** is making several important extenons to its refinery at Oleum, California, for five 600-barrel stills e to be added for the manufacture of lubricants and gasoline. ne company has a pipeline from the Santa Maria field. through hich the casing-head gasoline is run from its own plant and also om the two plants of the Prity Gasoline Company.

## USSIAN.

**Ural Caspian Petroleum Company.**—This company intends increase its capital by 3,500,000 roubles.

**Formation of a New Company.**—A new company, under e name of Sounja Company, has been formed with a capital of 000,000 roubles.

**Caspian Petroleum Company.** — This company is issuing ,000 new shares of a nominal value of 100 roubles each at the ice of 150 roubles.

**Moscow Caucasian Petroleum Company.**—This company s been authorised by the Ministry to increase its capital from 500,000 to 6,000,000 roubles by issuing 1,500 new shares of 1,000 ubles each.

**Mantascheff Company.**—The production of crude oil of this m during 1913 amounted to 23,360,135 poods. The dividend for e year will be 22 roubles per 100-roubles share and 55 roubles per 0-roubles share.

**Akhverdoff Company.**—This firm is completing the laying of pipeline from Grosny to Petrovsk, on the Caspian Sea. The peline will be opened for exploitation at the opening of the Volga vigation this year.

**The Lianosoff Company.**— The Ministry of Trade and dustry has authorised this company to increase its capital from ,000,000 to 30,000,000 roubles. The production of the company ill now be increased to 40,000,000 poods a year.

**The Situation on the Central Market.**—The situation on e central market is firm, and high prices are ruling—viz., ½ copecs per pood, at which price 5,000,000 poods were contracted r by some large metallurgical works. Generally, however, conmers are keeping back in the hope that prices for fuel will fall.

**Situation at Baku.**—The situation on the Baku market during e first fortnight of March was very firm. Prices rose by 2 copecs r pood. The rise in prices is undoubtedly influenced by the early ening of the navigation, as the first tankers left here on arch 7th, which is quite unprecedented in the history of the olga navigation. Many important deals have been concluded, nong which is one for 7,000,000 poods of fuel and 500,000 poods of rosene.

## ROUMANIAN.

**Exportation.**—Exportation is now weak, notwithstanding the prices being favourable for export. There is, however, a good demand for benzine.

**Prices.**—Prices of crude oil are extremely firm. During the last few days 8·50 francs per 100 kilos have been paid for quick deliveries in small quantities for Bustenari oil.

**Steaua-Romana.**—The production of this company for the past week averaged 907 tons a day. In regular eruption are the wells No. 116 Bucea (with 52 tons a day), No. 233 Chiciura (with 10 tons a day), and No. 16 Moinesti (with 4 tons daily).

**Astra-Romana.**—The production of this company during the past week averaged 1,423 tons a day, of which 1,045 tons were obtained at Stavropoleos, 277 tons at Bana, 39 tons at Campina, 45 tons at Filipesti, and the remainder at Baicoi, Glodeni, and Runcu.

**Victoria.**—This company is now actively engaged in boring. Its productive wells at Bustenari now yield regularly, and other wells are being repaired and deepened. At Baicoi well No. 2 shows indications of oil at a depth of 180 metres. At Puturosu a new well has been bored.

**Dambovitza Company.**—This company, which had a concession of some State property at Gura Ocnitzei, is now in liquidation, and the property has been taken back by the State. Thus the capital of 400,000 francs which was invested by this company in its exploitations is entirely lost.

**International.**—This company has registered two good results in the Bustenari district, viz., well No. 32 on the oilfield, which struck oil about a month ago and now regularly yields 20 tons a day, and well No. 4 (Bordeni-Doftanetz), which has recently struck the second stratum at a depth of 310 metres and produces 10 tons daily.

**The Romana-Americana.**—Well No. 8P of this company continues to produce by spouting over 300 tons a day. The production of the company maintains at the figure of 1,200 tons a day, of which 1,130 tons are obtained at Moreni, 35 tons at Baicoi, 25 tons at Bustenari, and 10 tons at Tetzcani. Well No. 3 Baicoi, on the field of the Sperantza Company, has entered into regular production.

**Arnhemsche Pet. Maat.** — Well No. 17 Recea of this company has struck oil at a depth of 316 metres. After spouting the well now produces regularly from 20 to 30 tons a day, but the production is expected to considerably increase, and the company intends boring several new wells in the neighbourhood. The whole of the field surrounding this well will therefore become of great importance.

**General Production.**—The general production is increasing. At Moreni the production shows a considerable increase owing to the eruptive wells of the Astra-Romana at Stavropoleos, among which are mentioned well No. 27 (with 200 tons a day). well No. 22S (which has increased its yield from 50 to 200 tons a day), and also wells Nos. 23 and 37, at Bana, which are now in regular eruption, and of which the last one yields 160 to 170 tons a day.

## GALICIAN.

**Tloha.**—Well Tloha, which has recently entered into production, is now yielding from 500 to 700 tons a day.

**Zagorz Petroleum Company.**— Under this name a company has been formed with a capital of 4,000,000 kronen in 8,000 shares of 500 kronen each.

**Austrian Petroleum Industrial Company.**—The dividend of this company for the closed year has been fixed at 33¾ per cent., as against 40 per cent. during the preceding year.

**Petroleum Industrial Company.**— This company, which has its offices at Vienna, is distributing for the closed year a dividend of 5 per cent. The company intends to increase its capital from 2,000,000 to 3,000,000 kronen.

**Carpathian Petroleum Company.**—The production of well No. 18 of this company at Tustanowice, which has recently been deepened, has now increased from 180 tons a day to 600 tons a day. This new production gives an additional profit to the company of £12,000 a month.

# NEW ENGLISH COMPANIES.

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### EAST EUROPEAN OIL COMPANY, LTD.

Registered on March 4th by Pakeman, Son, & Read, 11, Ironmonger Lane, E.C. Capital, £25,000, in £1 shares (15,000 part preference). Objects: To acquire and deal in oil properties and propositions, and to carry on the business indicated by the title. Signatories: G. Rowson, 14, Harcourt Street, Marylebone, W., and W. R. Davies, 24, Kenwyn Road, Wimbledon, S.W. First directors (who are to number not less than two nor more than seven) are to be appointed by the signatories. Qualification: 250 shares. Remuneration: £100 each per annum (chairman, £150). Private company.

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### NORTHERN SYNTHOL MOTOR SPIRIT COMPANY, LTD.

Registered on March 24th, by A. Blackman, Gresham House, E.C. Capital, £50,000 in £1 shares. Objects: To carry on the business of manufacturers and refiners of, and dealers in oils, hydrocarbon, spirit, ozokerite, and paraffin and other similar substances, and to turn to account same, etc. Minimum cash subscription, seven shares. Signatories, A. R. Martin, Primrose Bank, Upper Woodcote, Purley, Surrey; G. H. Fairbairn, London Road, Twickenham; W. E. Eaton, 71, Winkfield Road, Wood Green, N.; A. S. Bassi, 56, Fotheringham Road, Enfield Town, Middlesex; J. Hailey, Gainsborough, Sidcup; M. A. Carson, 31, Princes Avenue, Alexandra Park, N.; and C. J. Weirmott, Montalt Road, Woodford, Essex. First directors to be appointed by the signatories. Qualification (other than first directors), £100. Registered office, Borough Road, Weaste, Manchester.

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### WESTERN CANADIAN CONCESSIONS, LTD.

Registered on March 23rd, by Jordan & Sons, Ltd., 117, Chancery Lane, W.C., for F. J. Purdie, 218, High Street, Tooting, Surrey. Capital £40,000, in £1 shares (10,000 seven per cent. pref.). Objects: To acquire land and metalliferous lands in the Dominion of Canada, and elsewhere, and to carry on the business of extracting, pumping, drawing, transporting, boring, purifying, and dealing in petroleum and other mineral oils, etc. Minimum cash subscription, 5 per cent. of the shares offered to the public. First directors: F. J. Purdie, 218, High Street, Tooting, Surrey; R. Mollik, Frankfort-on-Main, Germany; B. Middleditch, Cross Key's House, Moorgate Street, E.C. (lif directors). Qualification, £100. Remuneration, £25 each per annum. The signatories are the above-name gentlemen, and also F. J. Cook, 7, Carmalt Gardens Putney, S.W.; C. A. Middleditch, A. M. Middleditch A. W. Middleditch, all of Park Lodge, Weston Park Hornsey, N., and B. Simons, 81, Kitchener Road, Fores Gate, Essex. Secretary, F. J. Purdie.

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### THE NORTH CASPIAN OIL CORPORATION, LTD

Registered on March 24th, by Spyer & Sons, Austi Friars House, E.C. Capital, £1,100,000 in £1 shares Objects: To acquire certain oil, petroleum, and mineral bearing lands and claims, options and concessions ove oil and petroleum-producing and mineral properties i the Russian Empire, and to erect and carry on work and pipelines for the purpose of conveying and transporting oil and other products, for the purpose o distilling and refining oils, and to carry on the busines of transporters and carriers of oil and petroleum, an their products and ingredients, etc.; also to ente into an arrangement with the Russian and Easter Agency, Ltd Minimum cash subscription, £7. Signatories: F. B. Turner, 35, Dartmouth Park Road Highgate Road, N.W.; M. J. Spyer, "Holmdale," Church Crescent, Finchley, N.; C. H. Brookes, 48 Brocklebank Road, Wandsworth Common, S.W.; A B. Muria, 75, Seymour Street, W.; F. T. Hedfork, 6 Stamford Mansions, Stamford Hill, N.; C. R. Baker 32, Jenner Road, Stoke Newington, N.; and C. Barnard, 170, Ilbert Street, Queen's Park, W. First directors (who are to number not less than five nor more than eleven) are:—R. Stirling, Dorman's Park, Surrey; H. W. Sillem and E. W. Howe, both of Dashwood House E.C.; H. D. Boyle, 37, St. James's Place, S.W.; E. Cailiard, 17, Gracechurch Street, E.C.; H. Stuart, 134, George Street, Edinburgh; and E. Hume-Schweder, Founder's Court, Lothbury, E.C. Qualification, 100 shares. Remuneration (other than managing director, whose remuneration shall be fixed by the instrument appointing him managing director), £300 each per annum (chairman £500). Registered office, Founder's Court, Lothbury, E.C.

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# THE OIL RESOURCES OF THE BRITISH EMPIRE.

## LECTURE BY DR. F. MOLLWO PERKIN.

AN interesting lecture on "Oil Resources of the npire" was delivered by Dr. F. Mollwo Perkin, I.C., F.C.S., on Tuesday evening, in connection with e Colonial Section of the Royal Society of Arts, hn Street, Adelphi, W.C. Lieut.-Col. Sir Charles edford, D.Sc., LL.D., presided, and in introducing the cturer said the lecture was one of a series on various bjects under the auspices of the Colonial Section. e considered the present moment a particularly usel time to take stock of the nation's resources of fuel pply within the Empire. The paper to be delivered Dr. Perkin should help to direct attention to and imulate interest in the vast field for exploitation of e sources of supply within their own Empire. Dr. erkin held an important position as Head Chemist of e Borough Polytechnic Institute, and was a great thority upon the various branches of Applied iemistry.

THE enormous and ever-increasing importance of oil to the rld has of late years been recognised by every civilised nation. e source of wealth of Great Britain has in the past lain in her al resources. While other nations were in the melting-pot, d in course of formation, we, owing to our insular position, had t ahead of them: we had our revolutions, obtained our freedom, d therefore were in a position to consolidate, while nations less ourably situated were still honeycombed by internecine strife, in the throes of war with neighbouring states. Had it not en, however, for our enormous coal-beds even our favoured sition could not have made us a manufacturing nation, and one time it might almost be said we were manufacturers for e world. It is this reason probably which causes such comtion in the Press and among individuals in general, when we ar that a bridge-building contract has not been obtained by itish engineers, or locomotives have been ordered for a British lway from a foreign source, or that steel tramway rails have en obtained from Belgium. Those who talk of decadence get that it is no uncommon thing to see British locomotives Continental and other railways, and British goods of all kinds roughout the world—even in highly-protected countries.

Unfortunately, the price of coal—the raw material of so many dustries—is increasing; and, worse still, we begin to realise at its supply cannot be indefinitely maintained. As it comes more and more difficult to mine the coal so its price ll increase.

Even where coal is cheap it is sometimes found that oil fuel n be more readily and even more economically employed than e black mineral. Sometimes, indeed, even if it is not more onomical, it is more satisfactory because it is easier to manilate, and can be employed in a way in which it is difficult to e coal. For example, warships fitted with oil-engines can adily obtain fresh supplies of fuel when at sea (even when going a considerable pace there would be no difficulty to supply l fuel from a tender), whereas it is not a simple matter to coal long distance from land in heavy weather.

Generally speaking, when referring to oil one's mind goes back mineral oil—that is to say, oil won from the earth by boring l wells or the distillation of shale. But fifty years ago vegetable animal oils were very much more employed than mineral oils, th for lubrication and illuminating purposes. Although up to e present in Great Britain and her Dominions beyond the seas mparatively small quantities of mineral oil have been obtained, e British Colonies and Dependencies supply enormous quanties of vegetable oils, which add greatly to the wealth of the Empire. Consequently, in dealing with this subject, it is intended to treat it under the following headings: (1) Mineral Oils, including Shale Oils; (2) Coal Tar and similar Oils; (3) Vegetable Oils; (4) Animal and Fish Oils.

Although Great Britain is so rich in coal, up to the present only traces of the petroleum oils have been located. As far back as 1667 mention is made of an inflammable gas which escaped from a spring near Wigan. At Pitchford, in Shropshire, small quantities of liquid bitumen have been found. This bituminous petroleum was at one time sold as Betton's British Oil for curing strains and rheumatism.

At the Southgate Colliery, near Chesterfield, an intermittent flow of petroleum mixed with its own volume of water occurs, and flows at the rate of 70 to 100 gallons per day.

Small quantities of petroleum have also been found in some of the Lancashire coalfields. Quite recently petroleum has been discovered at Kelham, near Newark; a flow of from five to six gallons per day having been obtained from a bore-hole which had been sunk when searching for coal. At Willesden, in Middlesex, traces of oil, accompanied by gas, have also been reported.

In the South of England natural gas in very considerable quantities is obtained, and since 1896 gas to the amount of about 1,000 cubic ft. has been obtained daily.

Although petroleum oil is practically non-existent in the United Kingdom, large quantities of oil are now manufactured in Scotland from shale. The industry was founded in 1850 by James Young. In 1847 Young noticed a small stream of oil flowing from the top of a coal-working at Alfreton, in Derbyshire. He collected this oil, and from it extracted, on a commercial scale, wax and burning oil, and heavy oil. The supply of oil, however, soon gave out, and Young, surmising that the oil was produced by terrestrial heat, which caused it to be distilled from the coal, experimented, and ultimately took out a patent, in 1850 (No. 13,292), for obtaining oil by the distillation of shale. The first experiments were carried out with a bituminous mineral called boghead coal, and which yielded from 120 to 130 gallons per ton of material. In 1862 this mineral was worked out, and since that date the bituminous shales of Scottish coal-measures have been the chief supply. The bulk of the shale is obtained from Midlothian and Linlithgowshire.

With the present high prices obtained for oil the Scottish shale oil companies are in a flourishing state, but they have had to pass through many vicissitudes. In fact, had it not been for the valuable by-product ammonium sulphate, it was doubtful whether they could have continued to exist. The quantity of oil obtained from 1 ton of shale varies between 16 to 30 or 40 gallons, the present average obtained by the Scottish companies being 23 gallons. The total quantity of oil shale mined and treated in Scotland since 1907 was from 2,000,000 to 3,000,000 tons.

The total amount of crude oil at present produced annually in Scotland is about 275,000 tons.

Last year further shale deposits were located in the Island of Skye. These are being prospected, and it is hoped that it may be possible to establish oil-producing plant, and thus add to the output of oil in the United Kingdom.

I will now deal with the production or possibility of production of petroleum oils in the British Dominions in so far as our present state of knowledge will allow.

### CANADA.

Oil was first obtained in Canada in 1862, but the quantities produced have never rivalled the enormous yields from the American fields.

Canadian oil, owing to the presence of considerable quantities of sulphur, and the consequent unpleasant smell, which the ordinary methods of refining did not remove, was for some time a drug on the market. For a number of years past there has been no difficulty in selling it, but, unfortunately, the production has been declining since 1907.

The chief existing Canadian oilfields are in the eastern provinces—Ontario and New Brunswick, and are continuations of the eastern fields of the United States—but attention has recently been mostly focussed on Alberta, where great excitement and much speculation in land have prevailed for some time past.

In some districts, particularly at Medicine Hat, gas has been produced and used for a number of years by the municipality for lighting streets and other purposes. In February this year another well was brought into use, making the twentieth well now drilled within the city limits. In addition to the municipal wells, the Hunt Engineering Company have two wells, and are drilling others.

Alberta lies on the eastern foot-hills of the Rocky Mountains, and oil and gas have been located in a number of places. It should be borne in mind as pointing to the probability, or at any rate the possibility, of oil being obtained in this district, that many of the world's greatest oilfields have been found in situations flanking and running parallel to great mountain chains of recent formation. Of course the necessary geological formation must be present. The strata must contain porous rocks which will act as reservoirs for the liquid petroleum, and these must have an overlay of some impervious rocks which will seal up the reservoirs and prevent loss of gas pressure and of the more volatile liquids.

Further, in order to form suitable reservoirs, anticlinal or dome-like structures are essential. These conditions appear to be present in Alberta, consequently oil may be expected.

The famous tar sands of Northern Alberta, in the Athabasca and Mackenzie Valleys, show that petroleum, if no longer present, has been there at one time, and in enormous quantities. These tar sands appear to have been noticed by Sir Alexander Mackenzie towards the latter end of the eighteenth century. Borings made yield only small quantities of oil.

Although so far large quantities of oil have not been located in the western provinces, active prospecting is taking place, and according to Mr. Cunningham Craig, if only a small portion of the projects turn out successfully Canada may prove to have one of the richest oilfields of the world. Should this prove to be the case, it will be a most valuable asset to Canada and to the British Empire. It is therefore important that the Canadian Government should encourage the opening-up of these new oilfields and, by as far as possible preventing *wildcat* schemes and reckless company promoting, encourage the confidence of British capitalists in this direction.

### NEW BRUNSWICK.

Although the existence and possible value of the shale beds of New Brunswick have been known for a long time, no serious attempt has until recently been made to develop them. But now, owing to a systematic investigation undertaken in 1908 by the Government Department of Mines, and a report which followed, attention has been directed to the important economic aspect of these deposits. In December, 1913, the total number of men employed was 140. If the results turn out satisfactorily, it is proposed to put up a distillation and ammonium sulphate plant.

In other parts of New Brunswick drilling has resulted in the outflow of large quantities of gas, which, as already mentioned, is being used for industrial purposes. Small quantities of oil have also been obtained. In July, 1912, there were 15 productive gas wells in the vicinity of Strong Creak, 14 of which produced gas. Several are pumping oil, but the quantities do not as a rule exceed 1 barrel per day. The present gas production is estimated at 58,000,000 cubic ft. per day, the rock pressure being as high as 500 lbs.

The inter-colonial railway of Canada is employing natural gas as an illuminant in the railway carriages. It is also being used to run forges, furnaces, and gas-engines at Moncton. This gas is obtained from the natural gasfields of New Brunswick. The consumption of gas by the railway company for all purposes is about 30,000,000 cubic ft. per month in the summer and 50,000,000 cubic ft. per month in the winter. When one considers that the prosperity of Pittsburgh is due to the employment of natural gas, one can look forward hopefully to future prosperity in Canada from this source.

### NEWFOUNDLAND.

Small quantities of oil have been found at different tim but the results of drilling have not on the whole been v satisfactory.

### DOMINION OF AUSTRALIA.

Very little oil has as yet been obtained in Australia or N Zealand, but considerable quantities of shale have been locat and in some cases are being worked, and it is to be hoped will much more fully worked in the near future.

### NEW SOUTH WALES.

Production of shale on anything like a large scale commenc in 1868, when about 17,000 tons of shale, valued at abo £48,000, were raised. With the exception of 9,000 tons obtain near Murrurundi, in the northern district, the whole of the o put for 1911 was obtained in the western district, chiefly from t mines of the Commonwealth Oil Corporation at Wolgan and n New Hartley, near Capertree. The increased production in t northern district is due to the establishment of oil works Murrurundi and a refinery at Hamilton by the British Australi Oil Company.

### VICTORIA.

No extensive deposits have been located up to the prese time.

### QUEENSLAND.

Deposits of oil shale are known to exist at various localiti in Queensland, and what is believed will be a paying oil-beari area has been located near Roma. The tertiary basin of t Dawson River has oil shales on the central railway betwe Duaring and Wallaroo. In 1907 boring was commenced, and 1908 a flow of gas was struck, and flowed at the rate of abo 1,000,000 cubic ft. per day. It is intended to extend the bor but this has not yet been done.

Further prospecting is being steadily pushed forwa throughout the oil-shale areas of the State. Two areas have be inspected, one extending through the Narrows almost fro Gladstone to Rockhampton, and another on Baffle Creek, betwe Bundaberg and Gladstone. Certain of the shales are rich carbonaceous matter, and on destructive distillation yield oil.

### SOUTH AUSTRALIA.

Large areas of bituminous shale occur at Leigh's Creak a Lake Philipson. Excellent specimens of bitumen have be found on Kangaroo Island. These are undoubtedly petroleu products which appear to have been drifted on to the shore b ocean currents from some unknown source. The Governme geologist considers that the various discoveries hitherto mad are of no economic significance, and that they give no indicatio of the existence of oil-bearing deposits either in Kangaroo Isla or Eyres Peninsular.

### WESTERN AUSTRALIA.

Carbonaceous shale of considerable thickness exists in Cool gardie, but it has not yet been raised in quantity.

### NEW ZEALAND.

Oilfields have been discovered at Taranaki, situated on th North Island basin of New Zealand. There are at present tw flowing wells which are producing 6,720 gallons per week. Th oil closely resembles Pennsylvanian petroleum, and contain only very small quantities of unsaturated hydrocarbons; it i also free from sulphur, and yields about 14 per cent. of moto spirit, 38 per cent. of illuminating oil, and 10 per cent. of refine wax.

### TASMANIA.

Tasmanite shale has been discovered in the basins of th Mersey, Don, and Minnow rivers. The Government geologis estimates the probable capacity of the beds at 12,000,000 ton The average crude oil obtained from this shale is 40 gallons pe ton.

### PAPUA.

Prospecting in Papua has shown many signs of petroleum an of natural gas, and it seems quite probable that borings might strike good yields of petroleum.

### INDIA.

The largest sources of oil in India are found in Burma. Th presence of oil in Burma was known in the eighteenth century In 1797 no fewer than 520 active wells were producing petroleum free from water, the yield being about 400,000 hogsheads yearly These were at shallow depths.

The Burma oil is of two descriptions, one having a high specific vity and viscosity, but containing practically no solid paraffin ; other is of a lower specific gravity and containing very con- erable quantities of solid hydrocarbons. The yield of oil from Burma fields since 1908 was as follows :—1908, 173,402,790 lons ; 1909, 230,396,617 gallons ; 1910, 211,507,903 gallons ; 1, 222,225,531 gallons ; 1912, 245,335,209 gallons.

t will be noticed that although there was a decrease in output 1910, the 1912 output was the largest on record. The oil efined in Burma at Syriam, and shipped by the tank steamers he Burma Oil Company, which load on the Rangoon river.

onsiderable quantities of oil are also obtained from Eastern igal and Assam. The presence of oil in Assam was noticed ar back as 1825 by Lieutenant Wilcox. The oil is refined by Assam Oil Company. In 1894 the amount of petroleum ained was 167,000 gallons, whereas in 1912 it was 3,747,359 ons.

mall quantities of oil are also obtained in the Punjab, but they almost negligible, the amounts given being : 1908, 420 ons ; 1911, 1,400 gallons ; 1912, 950 gallons.

### TRINIDAD.

he great pitch lake of Trinidad has been known of since the e of Sir Walter Raleigh, who visited it in March, 1595. The a of the lake is generally stated to be from 99 to 100 acres. re is a constant outflow towards the sea, the stream of pitch raging 15 to 18 ft. deep.

he northern portion of Trinidad is occupied by a range of s, some of which are over 3,000 ft. high, and consisting of ks, which resemble in many respects the lower Cambrian Rocks anada. To the south of this range of hills, and comprising greater part of the island, the rocks consist chiefly of shales sandstones of tertiary age. The oil indications occur fly over the southern half of the island. These strata are own into a series of anticlines and synclines. As might be ected, oil, asphalt, and natural gas have been found to occur ig the course of the anticlines. The great pitch lake is situated he western end of one of the anticlines. Mining for pitch has n in operation for about twenty years, and during that time e than 1,500,000 tons of asphalt have been removed and the l of the lake has been lowered about 7 ft.

considerable amount of boring for oil has been done and the spects are most hopeful. It is hoped that Trinidad may ome an important source of oil fuel for the British Navy. November 8th, 1911, a prolific spouter was struck which it estimated produced 25,000 barrels in three and a half hours. ly wells, sunk to depths of 900 to 1,500 ft., have given initial s of several thousand barrels daily, and several wells have yielded 10,000 to 15,000 tons of oil in the course of a few months, one having an estimated yield of 50,000. At the end of 1912, 90 wells had been drilled, and in the 12 months 1911-12, 250,000 barrels were exported.

### BARBADOES.

The geological formations of Barbadoes are somewhat different from those of Trinidad, most of the island consisting of coral limestone. As in Trinidad, these tertiary rocks contain bitumen and petroleum. The total output from the wells to the end of 1912 was stated to be about 1,100,000 gallons.

### AFRICA.

Although Africa is a continent of such enormous extent, up to the present time, with the exception of Egypt, where prospects are encouraging, oil has not been found in large quantities.

In the Gold Coast there are large quantities of solid bitumen and deep holes filled with petroleum. The sand is also saturated with oil, which can be collected by making shallow excavations. A few wells have been drilled, and the oils have been examined by Sir Boverton Redwood and at the Imperial Institute. Probably further prospecting might reveal oil in large quantities. Up to the present, however, the yield has been disappointing.

In Nigeria there are surface indications of petroleum, and drilling has been conducted there since 1905 without, however, any very decided results having been obtained.

In South Africa favourable geological structure is only found in Cape Colony, and there only in narrow strips at the southern edge of the Karroo. Natal does not seem to have been examined geologically from the point of view of finding petroleum. In Natal beds of shale rich in oil are reported. In a recent report Mr. E. H. Cunningham Craig remarks, "All the evidence to hand at present leads to the belief that an oil-shale industry has good prospects of proving successful," and he urges that no effort should be spared to ensure that a fair test of its possibilities is made.

In Egypt the Egyptian Government have entered into an agreement with the Anglo-Egyptian Oilfields, Ltd., which will ensure thorough prospecting and drilling, and indications point to oil ultimately being obtained in large quantities.

Now to summarise. From the foregoing remarks it is seen that the only present and probable future source of petroleum oil in the United Kingdom is from the shale deposits. Owing to the ever-increasing employment of oil for propelling the ships of the Navy, to say nothing of that required by the merchant fleet, for aeroplanes, and for heavy internal-combustion engines, in general the quantity at present produced, though considerable, is but a drop in the bucket. If we turn to our Dominions over the sea,

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we find that up to the present the mineral oil production from our enormous Empire is strikingly small compared with that obtained from the United States and Russia.

Great Britain, after India, supplies the largest quantity, and is followed by Trinidad and Canada. Australia, like the United Kingdom, is at present only obtaining oil (except in small quantities) by the distillation of shale.

Trinidad is giving very satisfactory indications of becoming, in the near future, a valuable oil-producing country.

If the great shale-beds of Tasmania are operated another valuable source of oil will be opened up, and recent reports from South Africa also point to the possibility of the establishment of a shale-oil industry there.

At present our eyes are turned to Canada, and if the rosy hopes obtaining in this connection mature a vast addition will be made to our scanty resources.

The present production of the British Empire may be placed at about 1,359,329 tons.

The world's supply of petroleum for the last two years was over 15,000,000 tons.

Our requirements are continually increasing, and the competition among the nations to obtain oil is also increasing. In time of war, if oil were declared contraband we should find ourselves in a very awkward position unless we have an ample supply in stock. It is therefore of the utmost importance that careful geological surveys should be made of all the British Dominions, and where the conditions appear favourable test drills be made. While it may not be desirable for the Government to establish its own refineries, surely the Government might assist in the matter of survey and, possibly, in the sinking of test borings.

### Coal-tar Oils.

In Great Britain about 1,325,000 tons of tar are annually produced by the destructive distillation of coal, from gasworks, coke ovens, and blast furnaces. This amount would be largely increased if all the coke ovens were fitted with by-product recovery plant.

From coal tar about 10,000,000 gallons of benzol are recovered annually, but unfortunately for the motor-car industry, which is now beginning to use benzol, or a mixture of petrol and benzol, about 6,000,000 gallons are exported to other countries, leaving only 4,000,000 gallons to be used in this country.

It is not likely that Great Britain will import benzol or coal-tar products from her colonies, each will in this respect probably be self-supporting. I will therefore simply draw attention to the value of the by-products from the carbonisation of coal.

### Peat.

Peat is another source from which I believe, in the near future, oil will be profitably extracted. In Great Britain there are about 6,000,000 acres of peat with an average depth of 12 ft. Assuming that one acre will yield about 3,000 tons of dried peat—that is, peat containing about 18 per cent. of moisture—the vast stores of the raw material available in this country can readily be estimated.

That there are considerable difficulties in dealing with peat, owing to the large amount of water it usually contains, is well known—88 to 90 per cent. of moisture. When, however, it is dried down to about 20 per cent. of moisture, briquetted and subjected to destructive distillation, the following are produced: ammonia, acetic acid, methyl alcohol, tar, and gas of high calorific value. The tar contains bases, phenols, oil, and paraffin wax.

From the carbonisation of a Scotch peat in my laborator I obtained approximately the following quantities of product per ton of peat containing 16 per cent. of moisture. This con pares very closely with the results obtained at Oldenberg i Germany.

| | Perkin. | Oldenberg. |
|---|---|---|
| Oils .. .. .. .. | 448 lbs. | 540 lbs. |
| Paraffin wax .. .. | not determined | 60 ,, |
| Phenols .. .. .. | 280 lbs. | 260 ,, |
| Methyl alcohol .. .. | 51 ,, | 68 ,, |
| Sulphate of ammonia .. | 302 ,, | 62 ,, |
| Acetate of lime .. .. | 80 ,, | 100 ,, |
| Asphalt .. .. .. | 34 ,, | 40 ,, |

The German peat contained only 0.7 per cent. of nitroge whereas that employed by me had 2.1 per cent., hence the difference in the yield of ammonium sulphate.

The German results were obtained by distillation of severa hundred tons of peat, whereas my results were on the distillatio of 5 kilograms at a time. This probably accounts for the bett yield of oils in the German experiments. On distillation of th oils lower and higher fractions were obtained. The lowes fractions obtained by me commenced to distil at 120° C. Differen peats, naturally, will give different results.

Not only are there enormous peat deposits in Great Britain an Ireland, but also in Canada, Australia, and other British colonies Indeed, in Canada considerable work has been done in th exploitation of peat.

### Vegetable Oils.

Some vegetable oils are valuable lubricants, and for certai purposes are still preferred to mineral lubricants. It require in fact, a considerable time after the introduction of mineral oil for these lubricants to be taken up by engineers. This, howeve was largely due to the way in which they were refined. Som vegetable oils make very valuable illuminants; for exampl colza (rape-seed oil). Owing, however, to the important uses vegetable oils in other directions, it is a good thing that they hav now been largely replaced for lubricating and illuminatin purposes by mineral oils.

The lecturer then proceeded to deal at length wit these various oils, but this aspect of the subject is o little interest to our readers.

The Chairman, in proposing a resolution of thank to Dr. Perkin for his lecture, said they were ver grateful to him for his excellent survey of the subject As regards the various mineral and other fuel oils there was the great need for active development in th production of the same, as well as the necessity fo finding substitutes for petrol; in fact, this was an urgen national necessity. Their Empire had unique resource awaiting development.

Mr. Walter Reid afterwards proposed a vote of thank to the Chairman, and mentioned that the London Chamber of Commerce had that afternoon decided to form special section of the Chamber to deal with question regarding development, production, refining, etc., o petroleum, and to entrust it with the work which th Government ought to do.

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Telegrams: "TEXACOIL, LONDON." Telephone: LONDON WALL 6257.

(*Continued from page* 386.)

knowledge of the geological structure, has been acquired, the calculation of depths at which oil will be struck has to be gone into, having due regard to a most important point—the best locations for boring the wells, out of which the shareholder expects to acquire his fortune.

First of all, the engineer must determine the number of oil horizons, *i.e.*, oil-containing layers; secondly, the respective depths at which these layers will be cut; and thirdly, the value of the horizons in oil each twenty-four hours; in such valuation he must take into consideration the market value of the oils produced from the different strata. In a new field it is somewhat difficult to determine these points, but as the field becomes more developed, wells sunk, yield ascertained, the accuracy of determination converts from a complex to a simple problem.

Referring to capital having a contra influence on the proper development of an oilfield, I would like to impress on everyone the serious error most company administrators make in the desire to get rich quick, *i.e.*, to see gushers or fountains. I am of opinion that the exploitation of first oil horizons should be undertaken especially on areas where there is plenty of ground, but where neighbours are not draining the lower oil stores, while the exploitation is being made from the upper but less prolific oil zone. The work ought not to be limited, but other wells sunk to the lower horizon, guided by the data obtained from shallow drilling.

Careful watch should always be kept of the strata passed, and the water strata should be watched like a thief in the night, as undue regard in this respect has proved frequently to be disastrous, not only to the well, but the oilfield, and careless drilling has again resulted in other wells being flooded. There are two great dangers, therefore, in oil-well boring: on the one hand the water trouble, and on the other hand the "thirsty thirst" for spouters, to produce an effect with a spasmodic but tremendous output, sacrificing the smaller, yet commercial inflows of oil which, if regarded, would materially add to the success of the oil industry.

I hope I have not wearied you with too much "dry powder," and to relieve the dryness I will now throw on the screen, but rapidly some few slides that may better explain my paper.

A hearty vote of thanks to the lecturer concluded a most interesting meeting.

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# Drilling Difficulties.

### By Mr. W. H. BOOTH, F.G.S.

On Monday evening Mr. Booth delivered a lecture upon the above subject, Mr. Sidney H. North presiding. The lecturer said :—

The art of constructing bored, or tube, wells is very ancient, and the appearance of a collection of well boring plant has not inaptly been likened to an old junk shop. For, down to the present day, well-boring tools are rough and crude, and do not show much evidence of the use of the machine-tool, nor do they exhibit so much evidence of design and the correct choice of methods and materials as they ought to do after centuries of experience. Equally, the men employed on the practical work are, as a class, rough and uneducated. They behave after the customary manner of the uneducated worker, who thinks he possesses some kind of special knowledge. True, he art of well-boring is special, but it is not so special that a man skilled in engineering and millwright work cannot very quickly put himself, and the tools he uses, far ahead of the average plant and driller.

In Great Britain the obtaining of water by means of bored wells has not involved very serious depths. Wells of 500 ft. were regarded as deep 25 years ago. To pass 1,000 ft. was egarded as somewhat of a feat, and probably the deepest private well in this country is that of 1,585 ft., to the Lower Greensand, at Ottershaw, in Surrey, which was drilled, under my advice, at what I still regard as the deepest part of the trough of the London Basin, on a line normal to the trough at that point, though it is possible that there may be deeper parts either to the east or west of that borehole.

There are many faults of a fundamental order in the men, materials, and methods of well-boring, and, though I choose to draw my illustrations from hydraulic practice, it is not that the faults named do not pertain quite as fully, if not more so, to oil-drilling operations.

As said above, the men are chiefly of the day-labourer order, who have entered into the practice of the work by way of being crab workers on a hand job or general assistants on some piece of work. An instance of a very usual type of man comes to mind in shape of a couple of men who had been working on a job for two years, never having been visited by foreman or engineer. The only samples they had were a few lumps of the stuff drilled through, loose in a tool box without any indication of depth to guide one in finding things out. They sulked at my enquiries when I was called in to disturb what they had hitherto regarded as a permanent job. They had, as it ultimately proved, gone through a good supply of water, and were bent on finding the Lower Greensand in a locality where the Gault is apt to be continuous with the Kimeridge, that scarcely to be distinguished clay below the Gault. They were below where the Lower Greensand would have been had it been there. In short, they were as unacquainted with geological principles as with those of common honesty. In fact, in the early days of this job they had been put to work to bore a well to replace one which went dry every low-rate season, and they completed the work in the high-rate season, with the lower end of the borehole many feet above the bottom of the old well.

There are numerous instances where, when men encounter a good supply at a small depth, they ignore this solely in order to make a job, and they waste money drilling deeper, apparently thinking they are serving their employer by thus swindling his customer. I have even had well-boring firms refuse to quote to specifications because of what they regard as an unfair penalty clause, in which it is provided that proper sample boxes must be kept, or certain precautions must be taken at critical depths. What protection has the man who does not engage a consulting engineer, who knows the game should the well-borer come to him with a long face to declare that the hole will fall in if not lined with perforated tubing, at a cost far greater than the difference in price between the tenders? An unnecessary extra soon more than balances the unfairly low cost of the work as tendered for.

Now let us regard the earth as material to be drilled. How is this to be done, and by whom? Had such a job to be presented to an old-time millwright I venture to say that by the aid of common sense and the use of his acquired skill he would quickly master it, and would devise suitable tools for the work. My experience of the old millwrights, by whom I was trained myself, tells me that that is the class of man who ought to be put in charge of important drilling operations. Such a man is the marine engineer who has gone through all manner of experiences in tramp steamers, and to whom the inside of a derrick would resemble a sort of anteroom to heaven. Probably his trained character would be reflected by the arrangement of the tools in his care. We should expect not to find valuable chisels and other tools lying about, half buried in an accumulation of mud, filth, bones, and midden material, so characteristic of much oil-drilling plant.

The interior of a derrick and round about it ought to be clean and orderly, with suitable timbers on which to stand all tools in an orderly manner, and brackets for rope coils, in place of the untidy dirty heap of ropes so usually rotting in a corner, and suitable racks for all the material and tools that may be needed on the work.

But to the average financial man who has the command of petroleum ventures, the man who appeals is the coarse, dirty, drink-smelling man. "Obviously a workman," or "a rough diamond," such will be the estimation of him, where a skilled, quiet man will receive scant attention alongside the coarse ruffianism of the clown. We have recently had occasion to observe how a titled railway magnate in search of a manager has chosen an alien, because the methods of himself and colleagues have he admits, disgusted all good men with his line, and so he chooses a man from an American railway which shows a deficit. In the oil-drilling world, because boards of directors permit themselves to be ignorant that oil-drilling and water-drilling are one and the same operation, it is or has been thought proper only to engage men as drillers who were the loudest blasphemers and had the most powerful nasal twang. Thus there has been uselessly created a demand for America's surplus labour at extravagant rates, when scores of better men have been available, possessed of skill and engineering experience far in advance of the cattle-puncher of the Far West, who has never received mechanical training. Be it understood I do not decry the good American skilled workman, but only that modern foolishness which assumes that the foreigner of any breed is superior to our own men—more reliable, more resourceful—for he is not. The trouble is, that those who engage men do not know how to look for them, and mistake brag for brains.

On the question of materials volumes might be written. It is to be feared that many drilling troubles have arisen from the sale of best iron in a commercial sense as though it were best in a literal sense. All engineers know that best iron is the worst, and the two B and three B brands may be described by several adjectives having an initial B, which do not mean "best" in any true sense.

For certain purposes there are brands of Yorkshire and Staffordshire irons, such as Lowmoor, Farnley, etc., which are better than steel for shock purposes. Then, in place of common iron bolts, have we not manganese steel, which seems almost unbreakable? The well-drillers' outfit may be only rough smithwork, but smithwork is too costly to put upon inferior material. Down a small bore hole there is little enough room for the best and strongest of material to warrant the use of any inferior materials or methods. As an example of bad methods on otherwise good material, the socket end of a boring rod may be cited. These sockets are often merely drilled out of round iron with a swaged down shank for welding to the plain rods. The socket almost invariably will split up some cinder seam, and may open sufficiently to drop the line of rods below, especially when under a jacking strain. Such socket ends should only be made by welding a piece of flat bar round the rod end, so that the fibre of the iron is circumferential, and the weld made long under a good swaging, so as to be secure against failure.

Generally, in the making of tools there ought to be more attention to the shape and finish of parts and to general machine-shop niceties. Some of the few tools shown at last year's Olympia show were good examples of the application of accurate workshop methods to drilling tools and to such tools as obtain cores in friable material, or to what I term survey tools for taking the direction of divergence from bore hole or of dip of the strata, both angular and direction. Accuracy of manufacture has perhaps not been encouraged by the more common systems of boring. These and later systems all have their advocates, and the use of any system is a matter to be fixed by conditions.

It is a matter of regret that the system by percussion, considered by many to be the best for exploration work, should be so destructive of palæontological evidences. In America percussive systems appear to be confined to heavy crushing tools, which destroy all evidence, and produce a mash of earth and unrecognisable fragments. But in this country circular core cutters have been much used in percussion drilling, which yield cores as good as any rotary tool, and without washout jets. The rotary tool with washout jets, which is often objected to as liable to drive away evidences of oil, is excellent as a preserver of fossils at the time when these are not required, viz., after the stratigraphy of a district is already known. The American percussion rig is the lineal descendant of the old English spring-pole system, and here in England we have most of us used rotary system whenever conditions have demanded it. To an engineer the manner in which oil-drillers will drill into the oil strata and look upon a gusher roaring to waste, and pouring forth tons of sand and wasting thousands of barrels of oil, is simply incomprehensible. Why not regard the boring of an oil well from the point of view of the engineer, and not as a set out for a melodramatic cinema film? Why not lay out the work with a view to a possible gusher, so as to be able to shut down the well without sensational tunnelling to the casing and crushing in of the casing?

In short, it appears essential that the influence of the mechanical engineer should be more in evidence in oil drilling than it has been, and that oil drillers should be trained mechanical men, and not mere rough-and-tumble picked-up labourers. That th present condition of the art is what it is is due to want of know ledge on the part of the financial managers for oil companie and their lack of knowledge or appreciation that oil drilling a mechanical operation in which the sciences of hydraulics an pneumatics play their parts.

On the subject of power there is room for a variety of opinior I doubt if there are many really experienced drillers who woul not choose steam power in preference to all others. A stea engine is prompt in action; is positive; it will maintain a pu whilst not moving: can be easily controlled and regulatec and will always do a little bit more with extra pressure until i breaks down. An engine even if out of order will still work though more wastefully. But the position of the boiler furnac close to a derrick, is a danger, or may be, when gas is blowin and oil is about. The most obvious increase to safety and guar against waste is to employ superheated steam, conveyed a greate distance from the boiler in better heat-insulated pipes. Th heavy oil vapours which flow along the ground, and so reach th boiler furnace, seem to suggest also that boilers should be place considerably above ground level, on an earth platform, so as t avoid one risk.

In electricity there is a much-vaunted agent which is extremel convenient as a power agent while affairs are going well, but wi jib if called on to exert a dead pull, if not to produce seriou trouble; and few of us feel confident that the electric moto which must be placed near the derrick, will not spark sometime and what more efficient to start a vapour into flame do w know than an electric spark.

Three other agencies offer themselves. First of these is th gas or oil engine, which can be placed near the derrick if it exhaust pipe is carried to a distant exhausting point. The fu supply to this, on a proved field, lies to hand. But all forms o internal combustion engine have the fault of the electric moto They cannot do work steadily at slow speeds, or at no speeds though they can, with their heavy flywheel, take a run at a stick fast and release this, if not too late. Many a set tool has bee capable of release had the steam winch only been more instan taneously powerful.

Secondly, there is compressed air. To the writer, withou making special calculations, it appears economically possibl to use compressed air in the cylinders of a steam engine, such ai being compressed at a sufficient distance. Air compression an re-expansion are not processes making for efficiency, but neithe is steam if made too far away. And it should be easy to prehea the air before use by running the air pipe through the exhaus pipe of the steam or internal combustion engine. In the latt case the exhaust pipe must return from the derrick to a saf distance, so that no gas explosion can escape at any open en near a derrick.

There remains hydraulic transmission, either with water o oil as the transmitting agent. If the origin of power is sufficient it can be made to force water or other suitable liquid to an distance, there to give out probably 90 per cent. or more of th power used in transmitting it to the point of user. Hydrauli as also pneumatic, transmission possesses the very great advantag that whether the originating agent is a steam engine, an electri motor, or an internal combustion engine of any variety, the moto to which power is transmitted from such originating agent, ca exert a pull when running slowly or standing still under pressur To enable it to do so it is merely requisite that there shall be bye-pass from the transmission pipe to the suction side of th transmitter pump, such bye-pass to contain a controllabl resistance, such as a safety valve loaded to the maximum pressur against which the transmitter can run with certainty. With th motor at work, the safety or bye-pass valve will remain close but if the motor is called upon to exert a dead pull, as upon stuck line of tools, it will do so, and the gas or oil engine wi continue to run, bye-passing the liquid transmission agent, ye keeping up pressure on the motor. Such an idea is quite feasibl but it is crude, and would be uneconomical, because the pum power would remain a maximum at all loads. In the Compagn system the duty of the bye-pass is taken by a pump of mult cylinder rotary type, which is arranged to vary its stroke to su the demand for power. This is easily arranged to be done aut matically. Such a device, transmitting power by hydrauli essure, the medium being by preference oil, and the communica- n pipes sufficiently larger to counteract the additional resist- ce, beyond water resistance, due to viscosity, can be arranged any desired distance from the source of power, and possesses e great advantage, as already stated, of permitting any prime ent to be employed, steam, oil, gas, or air engines, or electric otors fed from any distant source. Moreover, such a system suitable for common use by any number of derricks within reasonable distance, power being distributed at constant essure, and charged for by meter ; the spent oil passing to e return main by way of a meter.

In this system there is a multi-cylinder pump, the cylinders ing bored radially in the rim of a drive, and fitted with plungers rying crosshead pins and slide blocks running in a circular e. This race is formed in a disc, which is free to move on a ll-bearing ring, and is carried in a frame which slides at will and fro, and is thus employed to carry the centre of the race either side of the centre of rotation of the cylinder disc. When e two are concentric the plungers have, of course, no movement. hen eccentric the plungers have a stroke twice the amount of e eccentricity. Thus, though the prime mover always runs at e speed, the pump stroke may vary down to nothing. Place e slider path ever so little eccentric from the disc and very le oil is pumped, but behind the oil is all the power of the me mover. The motor, driven by the oil pressure, then moves ex- dingly slow, and exerts a pull at a very low speed, behind which the full speed power of the prime mover. The motor is on a ilar principle, except that the plunger crossheads carry rollers l not simple sliders, and the rollers bear on a false ellipse of h form that for equal piston movements the angular velocity equal, and so the motor rotates at a steady velocity. The nbination, therefore, permits of a steady pull at no speed, ables any prime moving agent to be employed without jibbing l gives a maximum torque, as well as a maximum velocity, l the oil motor can be run at any distance from the oil pump. e system is the best and most elastic which has come under notice in power transmission of this order.

f a number of derricks had to be run off one common oil main vould be necessary for the pressure to be maintained constant he main, and at each derrick there would be a constant-speed motor driving the oil pump with variable eccentricity. bably the percentage of additional loss due to the extra relay tem would be quite counterbalanced by the economy due to principle of supply from a big central station fitted with her class boilers and engines than can usually be found ched to individual derricks.

ne piece of humbug by which oil-drillers have attempted to conce themselves as monopolist specialists is, first, that h-drilling is something outside all engineering experience. ignorant among oil drillers even contend that it is a cess differing essentially and in principle from water- ling. As a fact, water-drilling is a more particular operation, requires greater care than drilling for oil. Some water ermissible in oil. No oil is permissible in a water well. trained millwright or the marine engineer who is versed the principles of mechanics, dynamics, and hydraulics, will sp the practice of earth-drilling while the labourer or cow- cher class of man is still talking nonsense about what ear to him to be marvels. All engineers know that mud h work owes its success to the fact that its water is already charged with clay, and has lost its power of washing down the ls of a soft bore, and that mud is heavy and can hold back re better than any lighter liquid. An engineer knows that e are the two main factors. Yet I have heard in this city the mud flush forms a casing equal to steel ; that this erty is brought about by the rotation put upon it by the . Yet the tool can be brought to grass and split this mud ng from end to end, and it will weld up sound as ever—without of the centrifugal rotary effect.

o one will dispute the value of a mud flush, though it is a pity annot use heavier stuff, such as mercury, which would be very ctive in keeping up a wall. But the arrant nonsense talked men who have no engineering knowledge is most painful, it goes down with the majority.

here are problems in oil-drilling in regard to many points. they are all to be thought out on engineering lines, depending hey do on gravity, actual and relative, and the man to work them out is the engineer, and not the men who, having had something to do in an oilfield, play the confidence trick on the non-technical director.

A vote of thanks was passed to Mr. Booth on the motion of the chairman for his interesting paper.

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# Oil and Sane Finance.

### By Mr. S. A. LEHMANN.

Mr. S. A. Lehmann presented an interesting Paper on Wednesday evening, Mr. S. H. North taking the chair.

The lecturer said :—

America is not by any means the country in which the oil industry, *i.e.*, the refining of crude oil for lighting purposes, originated. Galicia claims the distinction. It was in 1853 that the first lamp for burning petroleum was constructed by a Mr. Bratkowski, a lampmaker of Lemberg, the capital of Galicia. The process of refining oil owed its origin to a chemist in Lemberg, named Lukasiewicz.

The first refinery of any size was built, according to the directions and advice of the last named, by the large estate owner Klobassa in 1856, and resulted in a profit of £8,000 for the first year—a very large amount in those days. In America the first refinery dates from 1859. It was Galicia again where the real oil industry took its start—the sturdy farmers combining with learned apothecaries in the creation of the first petroleum lamp, the first refining process, and the first machinery for this purpose.

The district of Krosno can be called the cradle of drilling technique—the first shaft having been started there by manual labour only. The price of crude oil was from ninepence to a shilling a gallon. The manager of the works was in receipt of a salary of about £4 per month, plus a royalty of 5 per cent. on the selling price of oil. This royalty resulted in most of these managers becoming very rich men.

A decided progress was made shortly after by Mr. Albert Fauck, who was the first in instituting steam power and installing the rinsing process. The drilling for oil by means of steam power was copied from Canada, but was so improved and perfected by him that it can readily be claimed as the Canadian-Galician system.

It was in 1880 that Mr. McGarvey, one of the pioneers of Canada, was induced to visit the Galician oilfields. His name and that of his compatriot, Mr. Perkins, have been ever since closely identified with the success of the fields.

Their closely-" guarded " secret of the Canadian drilling method was, however, successfully copied by some common workmen, and thus enabled the native engineers to largely encroach upon the so-called monopoly. The pupils soon eclipsed their masters, especially as none was considered eligible for the profession of engineer unless he had started work from the lowest rung of the ladder, *i.e.*, by commencing as a manual labourer. This practice became of inestimable value, as a dearth of good material was impossible, and the perfect training enabled men to occupy leading positions in the oil exploitation throughout the world. It can be stated that Galician labour is the most highly prized in the oil regions of India, Roumania, California, and the Caucasus.

The increase in the Galician oil production was somewhat irregular. Between 1870 and 1890 the yield was somewhere near 20,000 tons, mostly obtained from Western Galicia. In 1895 Eastern Galicia gained the ascendency, and maintained it ever since. In 1900 we reach 200,000 tons ; 1905, 800,000 tons ; and in 1909 it culminated in a production of over 2,000,000 tons, mostly from the new rush Tustanowice-Boryslaw. The output declined in 1910 to 1,800,000 ; in 1911, to 1,300,000 ; in 1912, to 1,200,000. It may be as well to explain at once that this decrease in the output was owing to the fact that the entire attention of the industry was concentrated on the Tustanowice-Boryslaw field, and that the numerous other districts were either neglected or abandoned.

Thus, paradoxical as it may appear, this decline in the output and the delivery of the Boryslaw showing signs of exhaustion, the potentialities of the Galician oilfields were never more brilliant or promising than at the present time. It is just about three years ago that investment in oil ventures became popular, and producing oil wells commanded big prices. The Tustanowice-Boryslaw shafts had just reached their first oil horizon, and some of them proved exceedingly prolific. The rich regious were pierced at a depth varying from 1,100 to 1,300 metres, entailing heavy expense and extraordinary patience. Crude oil was fetching from 30s. to 35s. per ton, and mining expenses amounted to about 8s., plus a royalty of about 18 per cent. Thus a large profit was secured, and as some producers showed results of no less than 500 tons per diem, the tremendous excitement which generally follows great mineral discoveries can easily be imagined. It may be as well to mention the fact that the price of oil is now £3. 15s. per ton. The consequence of the rush to these fields was the abandonment and neglect of the many other promising districts. It is not by any means to be assumed that the Boryslaw fields have been exhausted—the fact is, that there are still a number of good wells brought into bearing almost monthly—but the future of the industry lies without doubt in those regions which abound in profitable, well-known, and proved territories, chiefly in Western Galicia.

There can be no question that the greatest certainty of oil wells is their uncertainty. The deep-well sinking is subject to great disappointments and tremendous risks. To drill down the bowels of the earth in order to strike oil at from 1,300to 1,600 metres, nearly a mile in depth, entails enormous expense, a large plant, and the chance of a big inrush of that fiend of oil enterprises—water. That in spite of all these contingencies, work is continued shows not only the indomitable pluck, resource, and perseverance, but an abundant confidence which calls for unstinted admiration.

The prudent investor will prefer, however, to turn his attention to ventures which not only present highly attractive features, but are as near practical certainties as any oil wells can be. In addition, they will not strain his patience to the breaking point.

Where oil is struck at from 250 to 400 metres in less than six months, with an outside expense of, say, £2,000, it must be manifest that the risk is not anything like as great as sinking a deep shaft to 1,300 metres, taking sometimes three years to reach production and an average cost of £15,000 per well.

The yield of these shallow wells is mostly from 15 to 20 years, with a steady production and uninterrupted flow, against a large one in the deep borings, with an almost certain stoppage in one or two years.

Another most important point to be considered is, that the more shafts are being sunk, the less will be the cost ; a fact which is too apparent to need further explanation. If we form an estimate of what the wells are likely to yield, and assuming the price of oil to be £4 per ton, most of the eocene oil fetching £5, we arrive at the following result :—

| | | |
|---|---|---|
| Production of well, say, 5,000 tons .. .. | | £20,000 |
| Deduct royalty, say, 15 per cent. .. .. | | 3,000 |
| | | £17,000 |
| Cost of boring, etc. .. .. .. | £3,000 | |
| Exploitation, say .. ... .. .. | 2,000 | |
| | | 5,000 |
| Profit on each well .. .. | | £12,000 |

As there is room on some properties, say, for example, the Doris Oil Territories, to sink no less than 300 wells, and taking 5 per cent. to be productive, it can be easily imagined and calculated what an immense possibility Galician oil ventures present, anh how profitable the enterprise may become if the three essentials necessary to success be not lacking.

Mr. Andrew Carnegie ascribes the success of any undertaking to three cardinal points, viz., capital, labour, business ability. These attributes are like the three props holding up a three-legged stool, and if one of them is faulty, broken, or weak, the stool cannot stand up, it must fall to the ground, and it is quite immaterial which one leg is more essential than the other.

### Capital.

It was Macaulay who described the British public as experiencing periodical fits of insanity.

In no section of the community are these attacks so violent, and so absolutely bereft of all reason, as when their occurrence takes place in what is colloquially called the "City." There have been times when a perfect fever and delirium seemed to have seized young and old, when the zest, the lust and frenzy of money-making overrides every other consideration, or, in the words of the immortal bard, "Judgment thou art fled to brutish beasts, and men have lost their reason."

The "mad rush" for wealth is, of course, not an honest effort to develop the resources of Nature or the avails of human endeavour, but a hideous disease of ever-increasing and insatiable greed. These "periodical fits"—responsible for enriching the English language by adding the word "boom," so expressive when applied to an unhealthy growth of share speculation—end as a rule either in prostration or in a normal return to reason The latter stage is the least satisfactory. It consists in unhesitatingly condemning the good with the bad, and in condemning the evil practices of the share manipulator quite forgets that a sound, healthy, and resolute industry has nothing in common with the share-pushing fraternity.

The one consists of creating avalanches of paper certificates—representing mostly superstratums of water—upon which superstructures of finance are being built. The other rests upon the elementary laws of building on solid grounds of reason and judgment, and is being based upon the eternal and immutable law of compensation, which tells us in clear and unmistakable language that Nature will only yield success after a corresponding amount of work, thought, and strenuous labour have been expended.

When "oil" started on its all-conquering career on the highways, in its visible shape, *i.e.*, motor cars, and the byeways of finance, in neatly engraved share certificates, coupled with specious promises and visions of Rockefellers, the oleaginous youth became the instantaneous favourite of the speculative public. His appearance was most opportune. The British were just in the meshes of a coal strike, which threatened to prostrate industrial England, and strangle in its deadly coils the very breath of commercial existence.

The Prime Minister of England confessed to an astonished House of Commons that even his endeavours and promises of legislation failed to accomplish a compromise, and for the time being despair reigned supreme.

When in course of time a settlement had been arrived at, oil finance in the City, that is, speculation in oil shares, became rampant, receiving a further and most startling impetus by an appointment of a Royal Commission on the use of oil fuel for the Navy. There was only one reason why a great big oil boom was prevented from raging in its most virulent form in the City. It was owing to the fact that the public had not recovered from the stunning blows of the rubber craze, the aftermath of which consisted in maimed and expiring victims of hundreds of ill-starred promotions anxious and prepared to largely profit by this most insidious fit of insanity. Still, some very high-sounding and specious oil companies did come out, and received very large support in influential circles. Had some of these companies observed the most elementary laws of finance, the result would not have been unsatisfactory, but the capitalisation was not based upon successful working of the wells, but upon the ability of the share market to absorb huge creations of watered stock. In order to dangle dazzling figures before the investing public, producing wells in Galicia were bought at figures which simply "staggered Galician humanity."

In their haste to supply the market in London with shares these wells were acquired with startling rapidity, transformed into English companies, ornamented with high-sounding names as directors, meetings took place, in which the shareholders were promised the usual good things, and congratulated upon their good fortune in being members of so brilliant an enterprise.

Practices of this nature have been so frequent and are so familiar to the "City" man, that to dilate upon them would be idle. It is not the author's purpose to preach a sermon, or to subject erring members of the City fraternity to castigation. His idea is simply to differentiate between the frenzied finance of the share creator and the sane finance of the dividend creator. He wants to prove conclusively that successful organisations of oil enterprises cannot possibly be made in times of excitement, but must be carefully thought out, arranged, and financed with a view to a permanent and lasting success.

### Labour.

Enterprises of great pith and moment are "sicklied o'er with he pale cast of thought." Oil mining has created more millionires than any other venture which consists in winning the lumbering treasures from the bowels of an unyielding earth. he eminent personalities whose names illuminate the firmament f finance are brilliant examples of a wonderful constellation. here is something extraordinarily fascinating in the business, mething that appeals to the imagination in a far greater degree an any other enterprise. The reason is too obvious to need lucidation.

The geologist will tell you that, according to his lights, the strike f oil must take place at a certain spot which he indicates. The ative of the land, basing his knowledge on his natural intuition, is powers of observation, and his close familiarity with the soil, ill point out the exact location on which the oil must be found.

The capitalist will be guided to a very large extent by the inion of the expert, and is frequently at his wits' end where start. If he consults other experts, he is in a worse plight. he "battle of experts" is mostly the forerunner of disaster. cGarvey, in his earliest days the most successful of Galician oneers, in despair on whose advice he was to act, cut the "Gordian ot" by simply flinging his cap along the oil belt, and wherever alighted, there the drilling was decided upon. The results of is throw, indicative of the hazardous nature pertaining to oilking, were quite satisfactory. Oil having been struck, and e price of oil, owing to "Landesverband" (Union of Crude Oil oducers) fixing a minimum figure, the Galician oil industry ospered. The increased demand raised prices, the Austrian vernment fostered the industry in every way it could, and the lds became, and are still, living proofs of an ancient and wellstained prosperity. Labour—and with it skilled labour ounds—there is no oil centre anywhere in which better material studying labour conditions exists. The offices in Lemberg, engineers, as well as the banks, can answer each and every estion of importance as regards the different oil regions all ng the range of the Carpathian mountains where oil indications d plenty of wells abound. Statistics carefully compiled, with ps, sketches, notes, numerous reports by all the leading authoies, are all filed, and, aided by the latest information, are ught up to date. The men in charge of boring are nearly all n of education, possessing all the necessary qualification for ilful work. They have mostly taken degrees as engineers some University, and in addition to performing their duties th zeal and discretion, take a great personal interest in their rk. As some contracts contain a clause agreeing to pay a mium when payable oil is struck at a certain level, these men naturally most anxious to accelerate the work at the mines.

The ordinary workman in Galicia is the ideal specimen of the thodical labourer worthy of his hire. He combines the ifty habits of the agriculturist with the strict discipline of the dier. Untiring, always alert and willing, obeying the orders his superior with alacrity, he shares in the pride when payable is struck in the well he is working.

Railway communication has always been the paternal care of Austrian authorities; good roads are continually being ended and perfected. Wood is plentiful, water abundant, ing not expensive, the climate not subject to quick changes. in addition to all these advantages, one enjoys absolute protion under the wise laws of the Austrian Government, it is ent that the labour conditions in the Galician oilfields are as rly ideal to successful working as they possibly can be.

### Business Ability.

The Limited Liability Act proved the greatest factor in the elopment of business enterprise. Its wise and beneficent ditions enable the small as well as the large capitalist to ticipate in the evolutions of great schemes and vast operations. ital, in the hands of the capable and far-seeing, and perhaps n, organiser, is the lifeblood of enterprise. The man who sides over the destiny of the concern, whose veins rush and ob with the precious fluid supplied by all and sundry, must possessed, in addition to governing powers and, perhaps, ius, with a strict sense of duty. He must be a man of inrity and honour, and must regard himself as the trustee of other ple's money. By the code of the Companies Act he is called n to give an account of his stewardship only once in the rse of a year. The shareholder who subscribes to a company, and who does so from perusing the prospectus, is mainly actuated by a desire to sell the shares at a profit at the first opportunity. He relies largely upon the promises held forth in the prospectus, and is impressed by the names of the directors figuring on the board. It may, however, be stated that applying for shares in a company engaged in mining largely partakes of the nature of a lottery. Lotteries being illegal in England, the dealing in shares is its nearest approach. In the case of industrial undertakings, and especially concerns like Lyons, Harrods, Coats, etc., shares become gilt-edged investments, the fluctuations in values are few and far between, and the chances of making big money are for those only who were fortunate enough to become original subscribers.

The trouble with mining companies, or, rather, with such owing their existence due to an unhealthy speculation, is, that directors assume liability in directing affairs for which neither training nor ability fits them. This has always been the bane of the share markets, and nothing is more deplorable than the cruel and wanton losses sustained by innocent victims.

What most directors lack is concentration. We find men occupying seats at dozens of boards. It is not only a physical impossibility to attend board meetings and to decide important points, but an arrogant assumption of superiority in handling other people's money, and incurring scarcely any responsibility. The chairman of a company should be in exactly the same position as a Minister forming a Cabinet. He should have capable men around him, not necessarily the largest shareholders, but men who are willing and are prepared not only to work for the interest of the shareholders, but anxious to earn their fees, which are in most cases half the amount a Member of Parliament draws for representing his constituents. A great deal of time is wasted at board meetings by the passing of transfers and signing share certificates. In an excited share market these formalities take up most of the time at a board meeting, and scarcely allows consideration being given to the really vital points requiring decision and action.

It is much to be hoped that the outcome of a great many scandals in the public washing of the dirty linen of notorious companies which have disgraced the City during the last few years, will be clean, honest, and capable directorates. No man can be blamed if Nature declines to reveal her hidden wealth at the command of any human being, and everybody who participates in any mining venture ought to be fully aware of the risks he takes. If a director has done his best to fulfil the promises and anticipations set out in his appeal for funds, but Nature has failed him, nobody will find fault with him. The worst sin directors do commit is, dazzled by momentary success is striking, say, payable oil, they at once create new shares, and by increasing the capital, discount the future.

Business ability, coupled with a strong sense of duty and responsibility, is, without a doubt—and coupled with the other two essentials, capital and labour—the only trinity capable of withstanding all and any "of the slings and arrows of outrageous fortune."

◆

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# Oil Fuel for Industrial Uses.

By Mr. S. F. STACKARD.

Last night (Friday) Mr. S. F. Stackard delivered an illustrated lecture upon the subject of "Oil Fuel for Industrial Uses," Mr. John Purdy presiding over a large attendance.

The lecturer, in his introductory remarks, expressed his deep sense of obligation to Mr. Purdy for having consented to preside. He desired also to acknowledge the kindness of the Anglo-Mexican and British Petroleum Companies for the loan of the lantern slides and cinematograph films. He also thanked Messrs. Brusson, Oldham, and Delacour, of the former company, and especially the latter gentleman, for their valuable co-operation.

The first part of the lecture mainly dealt with the means of transport, storage, and distribution of oil fuel. Typical tank steamers were shown on the screen, together with the methods of discharging, bunkering, and loading up of road and rail tank vans. Although not strictly germane to the subject, the lecturer felt that, as he had the slides, he would be forgiven asking the audience to view some marine installations, as, after all, it was interesting to users of oil fuel to understand the means of transport.

One interesting illustration was that of the s.y. "Dorothy," a description of which appeared in our columns some time ago, and which the lecturer had fitted with an oil-burning installation. She had a 500-h.p. Yarrow water-tube boiler, and 175-h.p. triple-expansion engines. He described the pleasant conditions under which the engine-room staff worked, as compared to coal-firing, and the extreme cleanliness of the deck and fittings of the craft. A view was also shown of one of the many huge storage installations on the coast, the total capacity of which was 42,000 tons, equal to about 10,080,000 gallons.

After showing the contrast between the stokehold of a steamer firing with coal and another vessel using oil—the conditions in the latter being almost ideal—the lecturer addressed himself more particularly to the subject forming the title of the lecture.

An interesting view of a Babcock & Willcox land boiler appeared next on the screen. This was installed at the storage station of the British Petroleum Company, Ltd., at the Royal Albert Docks. It was used for driving powerful Tangye pumps, acting as auxiliaries in the discharge from tank steamers to the storage tanks about a mile distant. Firing under ordinary conditions with coal, the boiler was not capable of keeping the pumps constantly working, especially in cold weather, with oils of high viscosity, but immediately after being fired with oil the pumps were kept constantly running under any conditions. The maximum evaporation with coal was 3½ lb. of water per square inch of heating surface, whereas with the "Carbogen" burner, using heavy fuel oil, 5½ lb. was obtained and even 7 lb. could have been evaporated if requisite.

Mr. Stackard said that this brought home the fact that engineers in charge of electrical generating stations were not sufficiently alive to the importance of installing an oil-burning plant as an auxiliary or "booster" for "peak" loads. In the event of sudden fog or other cause of a sudden excess in the demand for current, a boiler with an alternative fire-door, fitted with an oil-burning apparatus, might be "boosted" to 50 per cent. excess of its ordinary coal evaporation, and that in the space of a few minutes.

The lecturer then turned his attention to metallurgical and other processes which lent themselves particularly to the use of liquid fuel. Views of various furnaces in connection with various industries were projected on to the screen, and Mr. Stackard gave figures and statistics going far to prove that even with fuel oil at its present high price it has enormous advantages, from the point of view of efficiency and economy, over any other heat source.

As an example, he instanced a billet-heating furnace, costing for a given output of material, with fuel oil at 2½d. per gallon, 1s. 1d., while the cost with coal at 12s. 6d. per ton for a similar output was 2s. 4½d. Figures were also given in connection with brass melting, showing a saving of about 8d. per 40 lb. of metal melted.

The lecturer gave some interesting particulars of the industry with which he was more particularly interested, and the audience were initiated into the mysteries of glass melting and blowing and the construction of furnaces; he pointed out the grea saving in capital outlay as compared to the cost of other type of furnaces.

A full explanation of the construction and working of th "Carbogen" patent burner was then given. It would interes the audience to know that the largest sheets of glass eve successfully bent, viz., those in the vestibule of Messrs. Warin & Gillow, Ltd., Oxford Street, were moulded in kilns fire with liquid fuel.

In conclusion, Mr. Stackard said that his audience might b under the impression that Colonel Drake, who "struck ile" i Pennsylvania, in 1859, was the pioneer of mineral oils, but, a Mr. Veitch Wilson wrote the other day, "Noah was ordered t pitch the ark within and without." Mr. Stackard also sai that he thought the Patriarch would have been eminently successful in the City, as he "floated a limited company when everything was in a state of liquidation."

The lecturer thanked the audience for their kind attention an forbearance, and after an interesting cinema display of th launching of oil-tankers of the Eagle Transport Company, th proceedings terminated.

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## AN INTERESTING EXHIBIT.

In our last issue we reproduced a photograph of on side of the exhibit of Messrs. Benjamin & Co., near th centre of the hall, but regret that owing to a misunderstanding on the part of the photographers the front o the exhibit was not included. This very attractiv portion is seen from the illustration here given, man

of the samples of petroleum products on exhibitio being those refined products of the American Independent Refiners' Organisation which are marketed in thi country by Messrs. Benjamin & Co. Our attention ha been called to a slight error which crept in in our description of this stand last week, when, in speaking o the firm's transformer oils, we suggested that they wer lubricants. Obviously for transformers they are use for cooling purposes.

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**Publicity.**—All enterprising firms advertise in the Review Shall we quote you Rates? Send a postcard to—Advertisemen Manager, Review Offices, 45, St. Mary Axe, London, E.C.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

April 3rd, 1914.

There are no alterations in the prices of Refined etroleum Oils:—Russian, 7¾d.; American, 8d.; merican Water White, 9d.; Roumanian, 7½d.; alician, 7½d.

### LUBRICATING OILS

All the American qualities have been reduced about )s. per ton; below are the latest quotations:—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current quotation is 65s. per ton, in bulk, ex harf.

### GREASE-MAKING OIL

quoted 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

The retail price in London for the best quality is 1s. 9d. er gallon and for the second quality 1s. 7d. per gallon.

### TURPENTINE

The American turpentine market is somewhat easier, uotations being for spot 32s. 1½d.; May/August, s. 7½d.; September/December, 33s. 7½d.

## LIVERPOOL.

April 2nd.

Petroleum oils have a steady sale, and former rrencies are asked for Refined, 8¾d. being still quoted r Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## AMERICA.

NEW YORK, March 31st.

Refined, in cases, is quoted at 11·25; Standard White 75; Credit balances, 2·50.

PHILADELPHIA, March 31st.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, April 1st.

The petroleum prices remain unchanged. The fer for kerosene begins to be lively, while the nzine market is quiet. American and Galician, 8·85; ussian and Roumanian, 8·85. Motor spirit, first ality 37·00–38·00, second quality (0·750–0·770 gravity) ·00–33·00.

## RUSSIA.

BAKU, March 31st.

The tendency of benzine is lower, that of gas oil and bricating oils higher. Crude oil is quoted at 41–41½ pecs per pood spot. Kerosene, 49½–50½ copecs. Residuals, 38½–49 copecs.

## AUSTRIA.

March 31st.

Crude oil is quoted 8·00–8·15 kronen spot. Kerosene, kronen at Oderberg. Benzine, 690/700, 40–41 onen at Oderberg. Gas oil, 7·65–7·75 kronen at lerberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, . 41·25.

## ROUMANIA.

March 31st.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·35 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–6·75 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report under date April 3rd as under:—

The quarterly meeting of the tinplate trade was held at Birmingham yesterday. There was a very small attendance and business was quiet. We quote prices of oil sizes as follows:—

| | | | | |
|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/4½ to 13/6 per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, ... | 18/9 ,, 18/10½ ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

(*Continued from the following page.*)

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| | SWANSEA— | | | |
| 26 | Bristol Steam Navig. Co. ... | Lub. Gr. | 240 | Antwerp |
| 30 | R. Turpin & Co. ... ... | Lub. | 3,600 | New York |
| | ABERDEEN— | | | |
| 23 | R. C. Reid & Co. ... ... | Lub. Gr. | 80 | Hamburg |
| | GLASGOW— | | | |
| 24 | Clyde Shipping Co. ... ... | ,, | 240 | Antwerp |
| 24 | ,, ,, ... ... | Lub. | 2,200 | ,, |
| 25 | Allan Bros. & Co. ... ... | ,, | 57,200 | Philadel. |
| 26 | Anchor Line ... ... | Lub. Gr. | 1.800 | New York |
| 26 | Maclay & MacIntyre Co. ... | Lub. | 5,550 | N. Orleans |
| 30 | Anchor Line ... ... ... | ,, | 18,800 | New York |
| | GRANGEMOUTH— | | | |
| 30 | Jas. Currie & Co. ... ... | ,, | 40 | Hamburg |
| | LEITH— | | | |
| 27 | G. Gibson & Co. ... ... | ,, | 80 | Antwerp |
| 28 | Jas. Currie & Co. ... ... | ,, | 1,800 | Hamburg |
| 30 | G. Gibson & Co. ... ... | ,, | 40 | Antwerp |
| 30 | Jas. Currie & Co. ... ... | ,, | 120 | Bremen |
| | BELFAST— | | | |
| 24 | J. C. Pinkerton & Co. ... | ,, | 60 | Antwerp |
| | CORK— | | | |
| 27 | P. Murphy & Co. ... .. | .. | 440 | Hamburg |
| | LIMERICK— | | | |
| 26 | Limerick Steamship Co. ... | ,, | 480 | ,, |
| | | | 10,339,690 | |

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MARCH 30TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| | LONDON— | | | |
| 20/2 | Anglo-Mexican Petroleum Products Co. | Fuel | 2,490 | P. Mexico |
| Mar. | | | | |
| 24 | G. W. Sheldon & Co. | Lub. Gr. | 380 | New York |
| 24 | S. Capon | Lub. | 2,600 | ,, |
| 24 | Mercantile Lighterage Co. | ,, | 80 | ,, |
| 24 | Port Authority | ,, | 5,410 | Hamburg |
| 25 | Schliemann Oil, etc., Co. | Lub. Oil and Gr. | 2,810 | ,, |
| 25 | J. Thompson | Lub. | 850 | Riga |
| 25 | Anglo-American Oil Co. | ,, | 32,880 | New York |
| 25 | Lunham & Moore | ,, | 5,040 | ,, |
| 25 | London Oil Storage Co. | ,, | 4,000 | N. Orleans |
| 25 | Anglo-Persian Oil Co. | ,, | 1,093,130 | New York |
| 25 | ,, ,, | Lamp | 1.743,600 | ,, |
| 26 | United Shipping Co. | Lub. | 250 | Riga |
| 26 | E. G. Boize | Lub. Gr. | 500 | Hamburg |
| 26 | Port Authority | Lub. | 130 | ,, |
| 26 | Union Lighterage Co. | ,, | 4,000 | New York |
| 26 | Mercantile Lighterage Co. | ,, | 5,400 | ,, |
| 27 | G. & H. Green | Lub. Gr. | 4,200 | ,, |
| 27 | Vacuum Oil Co. | Lub. | 36,260 | ,, |
| 27 | British and Foreign Wharf | Lub. Gr. | 130 | Antwerp |
| 27 | Price's Patent Candle Co. | Lamp | 413,900 | Kustendje |
| 27 | ,, ,, | ,, | 279,520 | ,, |
| 27 | Deutsche Erdol A.-G. | Benzine | 201,500 | ,, |
| 28 | Gerhard & Hey | Lub. | 360 | New York |
| 28 | Mercantile Lighterage Co. | ,, | 2,600 | ,, |
| 28 | S. Capon | ,, | 10,400 | Philadel. |
| 28 | British Petroleum Co. | Lamp | 967,500 | Westwego |
| 28 | ,, ,, | Gas | 674,700 | ,, |
| 28 | Vacuum Oil Co. | Lub. | 80 | Antwerp |
| 28 | R. O. Weiner & Co. | ,, | 80 | ,, |
| 30 | A. Duckham & Co. | ,, | 1,000 | ,, |
| 30 | Port Authority | ,, | 1,890 | Hamburg |
| 30 | E. G. Boize | ,, | 500 | ,, |
| 30 | Hanseatic Maritime Agency | ,, | 300 | Bremen |
| 30 | Lubricating & Fuel Oils Co. | ,, | 3,080 | N. Orleans |
| 30 | Snowdon, Sons & Co. | ,, | 3,130 | ,, |
| 30 | J. W. Cook & Co. | ,, | 13,160 | Philadel. |
| 30 | Mordaunt Bros. | ,, | 2,700 | ,, |
| 30 | Langley, Smith & Co. | ,, | 2,420 | ,, |
| 30 | ,, ,, | ,, | 4,530 | New York |
| 30 | Ragosine & Co. | ,, | 1,320 | ,, |
| 30 | Scott's Wharf | ,, | 2,500 | ,, |
| | LIVERPOOL— | | | |
| 24 | Burnaby & Chantrell | Lub. Gr. | 270 | Hamburg |
| 24 | Pickford's | Lub. Oil and Paste | 250 | ,, |
| 24 | J. T. Fletcher & Co. | Lub. Gr. | 60 | Antwerp |
| 24 | T. Wilson, Sons & Co. | Lub. | 24,000 | Dunkirk |
| 24 | Vacuum Oil Co. | ,, | 2,140 | New York |
| 24 | ,, | Lub. Oil and Gr. | 80,200 | ,, |
| 24 | Burnaby & Chantrell | Lub. Gr. | 1,810 | ,, |
| 24 | A. Hopps & Sons | Lub. Resid | 2,600 | Halifax |
| 25 | Valvoline Oil Co. | Lub. | 12,790 | New York |
| 25 | J. Light & Son | ,, | 2,520 | Baltimore |
| 25 | ,, | Lub. Gr. | 600 | Hamburg |
| 25 | Anglo-American Oil Co. | Lub. | 42,000 | New York |
| 25 | Vacuum Oil Co. | ,, | 2,040 | ,, |
| 26 | ,, | ,, | 1,600 | ,, |
| 26 | Rowand & Co. | Other Sorts | 80 | Antwerp |
| 26 | J. Light & Son | Lub. | 1,600 | New York |
| 26 | ,, | ,, | 400 | ,, |
| 26 | ,, | ,, | 2,000 | ,, |
| 26 | W. B. Dick & Co. | ,, | 11,800 | ,, |
| 26 | ,, | ,, | 8,600 | Philadel. |
| 26 | Crew, Levick & Co. | ,, | 65,900 | ,, |
| 26 | ,, | M. Colza | 5,810 | ,, |
| 26 | ,, | Lub. Gr. | 540 | ,, |
| 26 | Worthington & Boler | Lub. | 2,000 | ,, |
| 26 | Bowring Petroleum Co. | ,, | 9,630 | ,, |
| 27 | ,, ,, | ,, | 2,730 | ,, |
| 27 | American Line | ,, | 5,240 | ,, |
| 27 | ,, | Lub. Oil and Gr. | 1,210 | ,, |
| 27 | Anglo-American Oil Co. | Lub. | 7,200 | ,, |
| 27 | Bramwell, Fern & Co. | ,, | 1,220 | ,, |
| 27 | Meade-King, Robinson & Co. | ,, | 28,560 | ,, |
| 27 | ,, ,, | ,, | 5,000 | ,, |
| 28 | Fellows, Morton & Clayton | ,, | 5,960 | ,, |
| 28 | Bennett's Haulage, etc., Co. | ,, | 3,140 | ,, |
| 28 | Bramwell, Fern & Co. | ,, | 4,650 | ,, |
| 3 | ,, ,, | ,, | 5,070 | ,, |
| 3 | W. B. Dick & Co. | ,, | 15,020 | ,, |
| Mar. | LIVERPOOL— | | | |
| 30 | Meade-King, Robinson & Co. | Lub. Gr. | 2,600 | Baltimore |
| 30 | A. Hopps & Sons | Lamp | 5,320 | ,, |
| 30 | ,, | Lub. | 28,600 | ,, |
| 30 | Pickford's | Lub. Oil and Gr. | 1,180 | Hamburg |
| | BARROW— | | | |
| 27 | Asiatic Petroleum Co. | Benzine | 884,800 | Rangoon |
| | BOSTON— | | | |
| 27 | W. F. Beaumont | Lub. | 150 | Hamburg |
| | BRISTOL— | | | |
| 24 | First Anglo-Russian Oil Co. | ,, | 2,260 | New York |
| 24 | Anglo-American Oil Co. | Gas | 288,070 | ,, |
| 24 | ,, ,, | Lub. | 256,270 | ,, |
| 24 | ,, ,, | Lamp | 167,940 | ,, |
| 25 | J. & R. Bush | Lub. | 240 | Antwerp |
| 25 | Ford & Canning | ,, | 22,280 | New York |
| 25 | C. Hill & Sons | ,, | 14,160 | ,, |
| 26 | ,, | ,, | 8,400 | ,, |
| 27 | Turner, Edwards & Co. | ,, | 220 | Nantes |
| 27 | Pickford's | Lub. Oil and Gr. | 600 | Hamburg |
| 27 | J. & R. Bush | Lub. | 19,120 | New York |
| | GRIMSBY— | | | |
| 26 | J. Sutcliffe & Son | ,, | 770 | Antwerp |
| 27 | ,, | ,, | 50 | ,, |
| 30 | ,, | ,, | 160 | ,, |
| | HARWICH— | | | |
| 24 | Great Eastern Railway | ,, | 1,060 | ,, |
| 26 | ,, ,, | ,, | 140 | ,, |
| 27 | ,, ,, | ,, | 160 | ,, |
| 28 | ,, ,, | ,, | 230 | ,, |
| | HULL— | | | |
| 25 | T. Wilson, Sons & Co. | ,, | 8.430 | New York |
| 26 | W. Gilyott & Co. | Lub. Oil and Gr. | 1,600 | ,, |
| 26 | Wilson's & N. E. Railway | Lub. | 3,160 | Hamburg |
| 26 | ,, ,, | ,, | 800 | Antwerp |
| 26 | ,, ,, | ,, | 480 | Dunkirk |
| 27 | Meade-King, Robinson & Co. | Spirit | 25,000 | Rotterdam |
| 30 | Wilson's & N. E. Railway | Lub. | 360 | Antwerp |
| | MANCHESTER— | | | |
| 31/1 | Bowring Petroleum Co. | Lamp | 22,540 | P. Mexico |
| 20/2 | Anglo-Mexican Petroleum Products Co. | Fuel | 23,840 | ,, |
| 7 | Homelight Oil Co. | Lamp | 6,140 | Kustendje |
| 24 | Meade-King, Robinson & Co. | Lub. | 2,800 | New York |
| 24 | F. Chiesman & Co. | ,, | 1,060 | ,, |
| 24 | Anglo-American Oil Co. | Lamp | 232,670 | ,, |
| 24 | ,, ,, | Gas | 678,910 | ,, |
| 24 | J. T. Fletcher & Co. | Lub. | 350 | Antwerp |
| 25 | Bramwell Fern & Co. | ,, | 325,000 | Batoum |
| 25 | ,, ,, | ,, | 5,000 | ,, |
| 25 | Meade-King, Robinson & Co. | ,, | 325,000 | ,, |
| 25 | ,, ,, | ,, | 5,000 | ,, |
| 25 | G. B. Taylor | ,, | 630 | New York |
| 25 | D. Currie & Co. | ,, | 50 | Hamburg |
| 25 | J. T. Fletcher & Co. | ,, | 800 | Ghent |
| 26 | Diamond Lubricating Co. | Lub. Oil and Gr. | 5,690 | New York |
| 26 | F. Schofield & Co. | Lub. | 2,590 | ,, |
| 27 | J. S. Holt & Moseley, Ltd. | Lub. Gr. | 3,600 | ,, |
| 27 | Anglo-American Oil Co. | Lub. | 792,000 | ,, |
| 27 | Diamond Lubricating Co. | Lub. Gr. | 2,820 | ,, |
| 27 | Anglo-American Oil Co. | Lub. | 97,990 | ,, |
| 27 | Liverpool Storage Co. | ,, | 25,270 | ,, |
| 27 | ,, ,, | Lub. Gr. | 1,410 | ,, |
| 27 | J. T. Fletcher & Co. | Lub. | 200 | Antwerp |
| 27 | F. Leyland & Co. | ,, | 3,200 | New York |
| 27 | McLiners, Ltd. | ,, | 400 | Philadel. |
| 28 | F. Chiesman & Co. | ,, | 1,000 | New York |
| 28 | Bramwell, Fern & Co. | ,, | 900 | Philadel. |
| 28 | Meade-King, Robinson & Co. | ,, | 22,760 | ,, |
| 28 | ,, ,, | Lamp | 7,200 | ,, |
| 28 | ,, ,, | Lub. | 2,000 | New York |
| 30 | Liverpool Storage Co. | ,, | 32,70 | Philadel. |
| 30 | D. Currie & Co. | Lub. Gr. | 160 | Hamburg |
| | MIDDLESBROUGH— | | | |
| 24 | E. Harris & Co. | Lub. | 440 | Antwerp |
| | NEWPORT— | | | |
| 30 | M. Jones & Co. | ,, | 800 | ,, |
| | NEWCASTLE— | | | |
| 26 | P. H. Matthiessen & Co. | ,, | 140 | Bergen |
| 30 | Tyne-Tees Steamship Co. | ,, | 800 | Hamburg |
| | SOUTHAMPTON— | | | |
| 23 | P. E. Curry | ,, | 280 | New York |

(*Continued on the previous page.*)

*From Lloyd's*

April 2nd, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:* L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Port Costa | Pisagua | L. Mar. 21 |
| AMERICAN | New York | Antwerp | Arr. Mar. 29 |
| APPALACHEE* | Invergordon. | Tyne | Arr. Mar. 30 |
| APSCHERON | Kustendje | Genoa | Pd. Dard. Mar.25 |
| ARAL | La Rochelle | Tyne | Arr. Mar. 5. In port Mar. 30 |
| ARAS | New York | Rouen | Arr. Mar. 30 |
| ARCA | Dalny | Balek Pappan | L. previous Apr.2 |
| ARTHUR VON GWINNER | Kustendje | Hamburg | Arr. Mar. 29 |
| ASHTABULA* | San Francisco | Pisagua | L. Junin Feb. 19 |
| ASTRAKHAN | New Orleans | Sunderland | L. Mar. 7 |
| AUREOLE | Tyne | Philadelphia. | Arr. ab't Mar. 31 |
| AZOV | Talara Bay | San Francisco | L. Mar. 16 |
| BAKU STANDARD | Portland | Philadelphia. | L. Mar. 25 |
| BALAKANI □ | Port Arthur | Manchester | L. Newport News Mar. 27 |
| BARNESON | Tyne | San Pedro | Arr. Punta Arenas ab't Mar. 27. |
| BATOUM | Jacksonville. | Sheerness | L. Newport News Mar. 28 |
| BAYONNE | Genoa | Sabine | L. Algiers Mar. 22 |
| BEACON LIGHT | Abadan | U. Kingdom | Pd. Perim April 2 |
| BEECHWOOD | Cienfuegos | Liverpool | Arr. April 1 |
| BLOOMFIELD | P. Mexico | Tuxpan | L. Mar. 6 |
| BORJOM | Alexandria | Batoum | Cl. Constantinople Mar. 25 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Pd. Anjer Feb. 19 |
| BRILLIANT | Port Arthur | Norfolk, Va. | L. Mar. 28 |
| BRITISH SUN | Trinidad | London | L. previous Apr. 2 |
| BROADMAYNE | Calais | Tyne | Arr. Mar. 2. In port Mar. 30 |
| BUFFALO | San Francisco | Taku | Arr. Mar. 14 |
| BULLMOUTH △ | Shanghai | Balek Pappan | L. Mar. 26 |
| BULYSSES △ | Thames Haven | Tyne | Arr. Mar. 29 |
| BURGERMEISTER PETERSEN | Sabine | Carlsham | L. Mar. 23 |
| BUYO MARU | Bombay | Rangoon | L. Mar. 9 |
| . A. CANFIELD* | Tampico | Sabine | Arr. Mar. 22. |
| ALCUTTA (Br. Bq.) | Yokohama | San Francisco | Arr. Feb. 23. In port Mar. 18 for Shanghai |
| AMILLO | London | Port Arthur. | Arr. ab't Mar 31 |
| APTAIN A.F. LUCAS | — | — | T. U. S., Pacific |
| ARDIUM △ | Tsingtau | Balek Pappan | Arr. Mar. 28 |
| ARPATHIAN □ | New Orleans | London | Arr. Mar. 28 |
| ASTOR | Monado | Palembang | L. Mar. 22 |
| AUCASIAN □ | Port Arthur | London | L. Mar. 30 |
| HARLES E. HARWOOD | Galveston | Tampico | 160 miles N. of Tampico Mar. 12 |
| HARLOIS | Rotterdam | New York | Pd. Dover Mar. 15 |
| HATHAM | Tampico | Tampa | L. Mar. 16 |
| HESTER | Antwerp | New York | Arr. Mar. 27 |
| HEYENNE | Barrow | Liverpool | Arr. Mar. 21 |
| IRCASSIAN PRINCE | — | — | T. W.C.S. America |
| ITY OF EVERETT | Jacksonville | Sabine | L. Mar. 22 |
| LAM △ | Singapore | Yokohama | L. Mar. 20 |
| LEARFIELD | Port Arthur. | Taranto | L. Mar. 20 |
| OMANCHEE | Liverpool | Sabine | L. Mar. 31 |
| ONCH △ | Rotterdam | Tyne | Arr. Mar. 16 |
| ONRAD MOHR | Christiania | New York | L. Tyne Mar. 12 |
| ORDELIA | San Francisco | Tocopilla | L. Mar. 16 |
| OWRIE △ | San Francisco | Tientsin | L. Mar. 12 |
| URRIER | New York | Guanica | 697 miles S. of Scotland Light Mar. 22 |
| YMBELINE | Gothenburg | Tyne | Arr. Mar. 17. In port Mar. 30 |
| YRENA | Singapore | Auckland | L. Mar. 27 |
| ZAR NICOLAI II. | Rouen | Batoum | Pd. Gib. Mar. |
| AGHESTAN | Antwerp | Philadelphia | Pd. Lizard Mar. 30 |
| ANUBIAN □ | London | Port Arthur. | Arr. Mar. 30 |
| AYLIGHT (Br. Bq.) | Hong Kong | New York | Arr. Feb. 28. In port Mar. 20 for Japan |
| ELAWARE* | Port Antonio | London | L. Mar. 19 |
| ELPHIN | Stettin | Baton Rouge. | Pd. Lizard Mar. 17 |
| ERBENT | Partington | Batoum | Pd. Eastham Mar. 3 |
| ESALBA | San Pedro | Taltal | L. Mar. 14 |
| EUTSCHLAND | Copenhagen | Philadelphia. | Arr. ab't Mar. 31 |
| IAMANT | Rotterdam | New York | Pd. Prawle Pt. Mar. 17 |
| DONAX | Tyne | Malta | Pd. Beachy Hd. Mar. 31 |
| EBURNA △ | Singapore | Balek Pappan | L. Mar. 24 |
| EDWARD L. DOHENEY | Galveston | Tampico | 66 miles S. of Galveston Mar. 18 |
| EL LOBO | Tocopilla | Callao | Arr. Mar. 29 |
| EL SEGUNDO | Honolulu | San Francisco | L. Tacoma Mar. 14 |
| EL TORO | New Orleans | Campana | Arr. B'nos Ayres ab't Mar. 9 |
| ELAX △ | Novorossisk | Rotterdam | Arr. Mar. 30 |
| ELBRUZ | Tyne | Amsterdam | Arr. In port Mar 30 |
| ELISE MARIE | Hamburg | Sabine | Pd. Beachy Hd. Mar. 19 |
| ELSINORE | San Francisco | — | L. Mar. 12 |
| EMANUEL NOBEL | Antwerp | Batoum | Pd. Dard. Mar.31 |
| ENERGIE | New Orleans. | Tuxpan | L. Pt. Eads Mar. 15 |
| ERIVAN | Kustendje | Spezia | Pd. Dard. Mar. 24 |
| ESCALONA | Rio Janeiro | Tampico | L. Trinidad Mar. 18 |
| ESTURIA | Madras | Aroe Bay | L. Sabang Mar 29 |
| EUPION | Sunderland | New York | Arr. Feb. 27. In port Mar. 20 |
| EUPLECTELA △ | Adelaide | Pulo Laut | Arr. Mar. 28 |
| EXCELSIOR | Copenhagen | Philadelphia. | L. Tyne Mar. 31 |
| F. A. TAMPLIN | Manchester | Mexico | Pd. Eastham Mar. 14 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | Rangoon | Kobe | L. Shimonoseki Nov. 27 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port Mar. 20. |
| GENESSE* | Avonmouth | Liverpool | Arr. Mar. 23 |
| GEORGIAN PRINCE | Port Arthur | — | L. Mar. 28 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Punta Arenas (Mag.) ab't Mar.25 |
| HAGEN | Rotterdam | New York | Pd. Scilly Mar. 29 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | San Francisco | Pisagua | L. Mar. 15. |
| HARRY LUCKENBACH | Baltimore | Galveston | Pd. Diamond Shoal Mar. 8 |
| HAVRE | Freemantle | Brisbane | L. Melbourne Mar 30 |
| HELIOS | Rotterdam | New York | In wireless com. Mar 24 |
| HERA | Philadelphia. | Rotterdam | Arr. Mar 30. |
| HERBERT G. WYLIE | Tampico | Perthamboy | Arr. Mar. 20 |
| HERMIONE | Port Arthur. | Portland | L. Norfolk, Va., Mar. 25 |
| HESPERUS | Pisagua | San Francisco | L. Mar. 15 |
| HORLEY | New York | Tuxpan | L. Mar. 19 |
| HOTHAM NEWTON | Middlesbro' | Port Arthur. | Pd. Lizard Mar.20 |
| HYRCANIA | Tyne | Port Arthur | L. Mar. 31 |
| ILLINOIS | Philadelphia. | New York | Arr. Mar. 10. |
| IMPEROYAL | — | — | T. St. Lawrence |
| IMPOCO | Kustendje | Savona | Pd. Dard. Mar 26 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | 130 miles S.W. of Brow Head Mar. 16 |
| J. B. AUG. KESSLER △ | Bombay | Rangoon | Arr. Mar. 31 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. Mar. 18 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Kustendje | Arr. St. Nazaire Mar. 25 |
| JUNO △ | Singapore | Miri | Arr. previous April 2 |
| JUPITER | Tyne | New York | 180 miles N. of Cullercoats Mar. 18 |
| KANAKUK | San Francisco | Hong Kong | L. Feb. 17 |
| KASBEK | Batoum | Antwerp | P. Dard. Mar 29 |
| KIOWA | Emden | Port Arthur | Pd. Lizard Mar. 10 |
| KIYO MARU | Shimonoseki. | Valparaiso | Sailed Honolulu Mar 4 |
| KOMETA | Kustendje | Spezia | Arr. Mar. 20 |
| KREMLIN | Tyne | Batoum | Pd. Sagres Mar. 29 |
| KURA | Blyth | Batoum | L. Mar. 24 |
| LA CAMPINE | Kustendje | — | Pd. Dard. Mar 27 |
| LA FLANDRE | Antwerp | New York | Pd. Beachy Hd. Mar. 29 |
| LA HABRE | Tyne | San Francisco | Pd. St. Vincent, C.V., Mar. 22 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | Antwerp | Philadelphia. | Arr. ab't Mar. 25 |
| LACKAWANNA* | New York | Manchester | Arr. Mar. 27. In port Mar. 31 |
| LAMPO | Genoa | Philadelphia | Arr. Mar. 22 |
| LE COQ □ | New York | Corunna, &c. | L. Mar. 19 |
| LEDA | Hamburg | New York | Pd. Lizard Mar. 18 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port Mar. 23 |
| LUCELLUM | Kustendje | Portsmouth | L. Mar. 30 |
| LUCERNA | Tyne | Malta | Pd. Sagres Mar. 31 |
| LUCIGEN | Abadan | Portsmouth | L. Port Said April 1 |
| LUCILINE □ | Novorossisk | Havre | Pd. Gib. Mar. 31 |
| LUMEN | Tyne | New York | Arr. Mar. 29 |
| LUTETIAN □ | New York | Havre | L. Mar. 26 |
| LUX □ | New York | Barcelona | L. Mar. 30 |
| LUZ BLANCA | San Francisco | Taltal | Arr. Callao ab't Mar. 31 |
| MAKKAVEI | Alexandria | Batoum | Cl. Constantinople Mar. 19 |
| MANNHEIM | Copenhagen | New York | L. Tyne Mar. 24 |
| MARGARETHA | Antwerp | Kustendje | Cl. Constantinople Mar. 25 |
| MASCONOMO | San Francisco | Moji | L. Mar. 11 |
| MASSASOIT | Yokohama | Bombay | Arr. ab't April 1 |
| MEPPEN | Kustendje | Brunshausen. | Pd. Dard. Mar. 29 |
| METEOR | Kustendje | Hamburg | Arr. Mar. 16. In port Mar. 23 |
| MEXICAN PRINCE | Tientsin | Singapore | L. Mar. 25 |
| MIJDRECHT | Kustendje | Antwerp | Pd. Southend Mar. 31 |
| MINA BREA | — | Callao | Arr. ab't Mar. 11 |
| MIRA | Port Said | Novorossisk | Pd. Dard. Mar. 30 |
| MITRA △ | Balek Pappan | Singapore | L. Mar. 27 |
| MOHAWK* | New York | Tuxpan | L. Mar. 17 |
| MOHICAN | New York | Stockholm | L. Mar. 18 |
| MUREX △ | Singapore | Adelaide | L. Mar. 25 |
| NARRAGANSETT | London | New York | 100 m. S.E. Brow Head Mar. 31 |
| NATICA △ | Balek Pappan | Gibraltar | L. Port Said Mar. 29 |
| NELSON | Puerto Pedro | Havana | Arr. Mar. 16 |
| NEW YORK* | Baton Rouge | Amsterdam | Cl. Norfolk, Va., Mar. 20 |
| NIAGARA | Shanghai | San Francisco | Arr. ab't Mar. 27 |
| NORMAN BRIDGE | Galveston | Tampico | 46 m. S. Galveston Bar Mar. 14 |
| OAKWOOD | London | Liverpool | Arr. Mar. 29 |
| OBERON | San Francisco | Ancon | L. Mar. 20 |
| OCEAN | Rotterdam | New York | L. Mar. 31 |
| OILFIELD | London | Tyne | Arr. Feb. 20. In port Mar. 31 |
| ORIFLAMME □ | Havre | New York | Pd. Lizard Mar. 10 |
| OSAGE | Tampa | Tuxpan | L. Mar. 17 |
| OTTAWA* | Liverpool | New Orleans. | Arr. ab't Mar. 21 |
| OURAL | Kustendje | Taranto | Arr. Mar. 27 |
| PALEMBANG △ | Calcutta | Rangoon | Arr. Mar. 31 |
| PATELLA △ | Novorossisk | Singapore | Pd. Perim April 1 |
| PAUL PAIX | Swansea | New York | L. Mar. 24 |
| PAULA | Oporto | Norfolk, Va. | L. Corcubion Mar. 24 |
| PAWNEE | Lisbon | New York | Arr. Mar. 27 |
| PECTAN | San Francisco | Port San Luis | L. Mar. 19 |
| PENNOIL | Rotterdam | Philadelphia. | Signalled Land's End April 1 |
| PETROLEINE | New York | Havre | L. Mar. 20 |
| PETROLEUM | Port Arthur | Portsmouth | Arr. Feb. 2 |
| PHOEBUS | Pisagua | Junin | Arr. Mar. 23 |
| PINNA □ | Tyne | Port Arthur. | Pd. Lizard Mar. 2 |
| PONUS | San Francisco | Orient | L. Mar. 6 |
| POTOMAC* | Sunderland | New Orleans. | Arr. Norfolk, Va., ab't Mar. 27 |
| POWHATTAN | San Francisco | Bombay | Arr. Mar. 11 |
| PROMETHEUS | San Francisco | Pisagua | L. Mar. 23 |
| PRUDENTIA | Trinidad | New York | Arr. Mar. 30 |
| PURELIGHT | Port Arthur. | Hamburg | L. Mar. 19 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | L. Mar. 28 |
| RADIOLEINE | Port Arthur. | Bremen | Arr. Havre Mar. |
| RANELLA △ | Cardiff | Malta | Pd. Gib. Mar. 30 |
| RENDOVA (Br. Bq.) | Seville | New York | Arr. Mar. 28 |
| RICHMOND | Seattle | San Francisco | L. Feb. 18 |
| RION | Port Arthur | Amsterdam | L. Mar. 22 |
| ROCK LIGHT □ | Hamburg | Tees | Arr. Mar. 25. In port Mar. 31 |
| ROMANY △ | Singapore | Gibraltar | Pd. Perim Mar. |
| ROSALIND | Southampton | Mexico | L. Mar. 26 |
| ROTTERDAM | Rotterdam | New York | Pd. Lizard Mar. 22 |
| ROUMANIAN □ | Manchester | Kustendje | Pd. Eastham Mar. 22 |
| ROUMANIAN PRINCE | Baltimore | Tampico | Pd. Cape Henry Mar. 18 |
| RUSSIAN PRINCE | Tampico | Aransas | Arr. Mar. 20 |
| SABINE RICKMERS | Swatow | Hong Kong | Arr. Mar. 23 |
| SALAHADJI △ | Calcutta | Sabang | Arr. Mar. 27 |
| SAMOSET | San Francisco | Kuchinotzu | L. Mar. 14 |
| SAN ANTONIO | Arzew | Larache | L. Mar. 21 |
| SAN BERNARDO | Thames Haven | Rotterdam | Arr. Mar. 10. In port Mar. 30 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Manchester | Tuxpan | Arr. Mar. 29 |
| SAN EDUARDO | Portsmouth | Mexico | Pd. Spithead Mar. |
| SAN FRATERNO | Borneo | Sheerness | Pd. Perim Mar. 28 |
| SAN GREGORIO | Tyne | Mexico | 40 m. E. Land's End Mar. 9 |
| SAN HILARIO | Borneo | Sheerness | Pd. Dover April 1 |
| SAN ISIDORO | Tyne | Thames Haven | Arr. Mar. 19 |
| SAN JERONIMO | Borneo | — | L. Mar. 29 |
| SAN JOAQUIN | San Francisco | Iquique | L. Port San Luis Mar. 10 |
| SAN LORENZO | New York | New Orleans | L. Mar. 29 |
| SAN RICARDO | Portland | Borneo | Arr. Mar. 27 |
| SAN SILVESTRE | New York | Avonmouth | L. Mar. 25 |
| SAN TIRSO | New Orleans | Trieste | Arr. Mar. 29 |
| SAN URBANO | Tuxpan | Puerto Mexico | L. Mar. 30 |
| SAN VALERIO | Puerto Mexico | Sheerness | Arr. Mar. 30. In port Mar. 31 |
| SAN ZEFERINO | Tyne | Port Arthur | Pd. Lizard Mar. 22 |
| SANTA MARIA | Port San Luis | Honolulu | Arr. Feb. 25 |
| SANTA RITA | Panama | Port Harford | L. Mar. 3 |
| SATANTA | Nagasaki | San Francisco | Arr. ab't Mar. 17 |
| SAXOLEINE | Rouen | Tyne | Arr. Mar. 23. In port Mar. 30 |
| SEBASTIAN | London | Novorossisk | Arr. Mar. 28 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port Mar. 30 |
| SEQUOYA | Amoy | San Francisco | Arr. ab't Mar. 24 |
| SERVIAN □ | Batoum | London | L. Mar. 30 |
| SHABONEE | San Francisco | Itosaki | L. Feb. 23 |
| SILVIA | Sheerness | Persian Gulf | Pd. Gib. Mar. 31 |
| SIOUX | Iquique | San Francisco | L. Mar. 25 |
| SIRIUS (Ger.) | Tyne | Kustendje | Pd. Gib. Mar. 31 |
| SOCONY | Tampico | Philadelphia. | Arr. Mar. 13 |
| SOYO MARU | Suez | — | Pd. Perim Mar. 24 |
| SPLENDOR | Tunis | New York | Pd. Gib. Mar. 22 |
| STAG | Antilla | London | L. Mar. 20 |
| STANDARD | Amsterdam | Norfolk | Ab't 33 m. E. Land's End Mar. 30 |
| STROMBUS △ | Cardiff | Port Arthur | L. Mar. 13 |
| SULTAN VAN LANGKAT △ | Aroe Bay | Singapore | Arr. Mar. 16 |
| SUNLIGHT (Br. Bq.) | Liverpool | San Domingo | Signalled Mar. 24 48 N. 7 |
| SURAM | Tyne | Blyth | Arr. Mar. 24. In port |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port Mar. 31 |
| SVIET | Odessa | Kustendje | Arr. Mar. 24 |
| TASCALUSAH | New York | Calcutta | Arr. Mar. 4 |
| TATARRAX | New York | Calcutta | Arr. ab't Mar. 13 |
| TEAKWOOD | Portland | Barry | Arr. Mar. 10. In port Mar. 31 |
| TECUMSOH | New York | Tampico | Pd. Diamond Sh'l Light Mar. 19 |
| TELENA △ | Alexandria | Abadan | Pd. Perim April 1 |
| TEREK | Tyne | Port Arthur | L. Mar. 11 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1 |
| TIFLIS | Batoum | Hamburg | Pd. Beachy Hd. Mar. 30 |
| TONAWANDA* | Sunderland | Rotterdam | Arr. Mar. 13. In port Mar. 30 |
| TRINCULO | Victoria, B.C. | Port San Luis | L. Mar. 11 |
| TRINIDADIAN | Port Arthur | Tampico | 290 m. N. Tampico Mar. 22 |
| TRITON | Rotterdam | Baton Rouge | Off Wight Mar. 30 |
| TROCAS △ | Hankow | Shanghai | L. Mar. 27 |
| TURBO △ | Tyne | Singapore | Pd. Sabang Mar. 24 |
| UNCAS | San Francisco | Moji | L. Mar. 4. |
| VEDRA | Port Arthur | Antwerp | Pd. Dover April 1 |
| VILLE DE DIEPPE (Norwegian Barque) | Philadelphia. | La Pallice | Arr. Mar. 17. In port Mar. 20 |
| VITRUVIA | London | Novorossisk | Pd. Oitavos Mar. 31 |
| VOLCANUS △ | Palembang | Bangkok | L. Mar. 29 |
| VOLUTE △ | Barrow | Tyne | L. Mar. 29 |
| WABASHA | Calcutta | San Francisco | Arr. Mar. 18 |
| WANETA | Galveston | New Orleans. | Arr. Mar. 20. In port Mar. 21 |
| WAPELLO | Manchester | Liverpool | Arr. Mar. 30 |
| WASHINGTON | New Orleans. | Tuxpan | L. Port Eads Mar. 22 |
| WEEHAWKEN | London | Port Arthur. | L. Dartmouth Mar. 20 |
| WIELDRECHT | Sunderland | Abadan | Arr. Mar. 25 |
| WILLIAM F. HERRIN | — | — | T. Pacific Coast of N. America |
| WILLKOMMEN | Stockholm | Philadelphia. | Pd. Dunnet Hd. Mar. 16 |
| WINAMAC | San Francisco | Mi-ike | L. Mar. 7 |
| WOTAN | New York | Hamburg | Signalled Mar. 31 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### Activity in the Oil Market.

THE activity which has characterised the oil share market during the past few days, and which still continues to characterise it on the eve of the Easter holidays, is full of significance, for it suggests to the thinking mind that there is every probability of a great revival at hand. Those who have followed events during the past year or two in the realm of finance have often marvelled at the prevalent stagnation of practically all classes of oil securities, for after making full allowance for the general market depression it has been surprising that oil shares have not claimed their own months ago. Each passing week we see fresh evidence of the extension of the petroleum industry, which now ranks in the forefront of international commerce, and one by one new regions are opened to commercial exploitation, each in its turn destined to meet some portion of the steadily growing demand for petroleum products. To us, therefore, the present Stock Exchange activity in oil comes as no surprise, and we have hopes that immediately after the Easter holidays this activity will be far more pronounced. The petroleum industry of the world to-day warrants a real boom in the formation of new exploiting concerns and in oil shares generally.

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### Capital Expansion in the Russian Oil Industry.

IN a recent issue of the REVIEW, when commenting upon the fact that the output of crude oil in the Russian fields was showing no material increase, or, indeed, displaying any tendency to rise from the low level to which it has steadily reached during the past few years, we impressed upon our readers the point that in the near future the output of crude oil in the Russian Empire was of a certainty bound to materially increase as a natural sequence to the advent of new capital which has recently been provided for the greater development of Russia's oil resources. It is interesting here to give a few details of the new capital which has within comparatively recent date been forthcoming in this direction. In the first place, Messrs. Nobel Bros. have doubled their capital, which now stands at 30,000,000 roubles; the Mantascheff Company now have a capital of 20,000,000 roubles, as against 11,000,000 roubles formerly; the Lianossoff Company's capital has been increased eight-fold to 16,000,000 roubles; the Russian Nafta Society's capital has risen from 5,500,000 roubles to 16,500,000 roubles: and that of the Mazout Company has been doubled, now standing at 12,000,000 roubles. Comment as to the future of Russia's petroleum industry is superfluous in the face of such eloquent testimony.

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### Another Strange Russian Project.

THERE seems to be no end to the surprises which on occasions come from the Russian Government in regard to the development of its petroleum resources; in fact, we have almost grown tired of referring to them. The latest scheme, however, deserves to be given the fullest publicity, for it once again proves how it is next to impossible for some governments to do the right thing at the right time. As our readers are aware, during the past few months it has been necessary for Russia to import large quantities of liquid fuel from Mexico duty free to meet the naval and industrial requirements. Russia is at the moment passing through an abnormal period in regard to its production of crude oil, and as a purely temporary measure, no one could seriously object to such a move. But now comes the demand of the Ministry of the Fleet for the granting of a lease of eighty dessiatines of petroliferous land in order to make good the present deficiency by additional oil production. Naturally, the Baku producers are energetically protesting against such a suggestion, and it is to be hoped they will succeed in their opposition. In any case, we totally fail to appreciate what the Russian Ministry of the Fleet can do by itself to satisfy the growing needs for oil fuel—it seems to be totally at sea.

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### The Deutsche Bank and its Oil Enterprises.

THE truly enormous influence of the Deutsche Bank upon the continental petroleum industry is well known, and it is therefore only fitting that Herr Arthur von Gwinner, the general manager of the bank, who presided at the general meeting held a few days ago in Berlin, should make reference to the position of the bank's several oil undertakings. The undertakings under the bank's patronage in the petroleum industry again have had, we learn, a prosperous year, and prospects for the current year are likewise encouraging. The Steaua-Romana increased its dividend to 10 per cent., and raised its capital to 100,000,000 lei (about £4,000,000), of which one-half is fully paid up and the other half to the extent of 25 per cent. The Deutsche Petroleum Actien-Gesellschaft, which holds the control of the Steaua-Romana, increased its dividend to 8 per cent., and intends shortly to raise its capital by an issue of £750,000 new shares (25 per cent. paid). This concern also is in a healthy condition and has strong reserves. The European Petroleum Union has shown most gratifying results, which are also ensured for the current year. When the Deutsche Bank first gave its support to the German Government in its project of drawing up legislation to secure a Government monopoly in Germany, those who opposed such action urged that the reason for such support was that the oil undertakings of the Deutsche Bank were doing badly, but the facts given above prove, what has since been common knowledge, that without exception all the undertakings are having a remarkably successful career.

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## GALICIA'S MARCH PRODUCTION.

According to the "Review's" Galician correspondent at Boryslaw, the total output of crude oil for March from the Tustanowice and Boryslaw fields will exceed 81,000 tons, or over 11,000 tons in excess of the output for February. The largest yield during the month was obtained from Messrs. Macgarvey's No. 18 well, with an output of slightly over 7,000 tons. The month's increase is principally due to the augmented output of this well.

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## LAUNCH OF THE "ARAGAZ."

On Wednesday, Messrs. Sir W. G. Armstrong, Whitworth & Co., Ltd., launched from their Walker shipyard a screw petroleum steamer for the Aragaz Tank Steamship Company, Ltd., of London. On leaving the ways the vessel was gracefully named "Aragaz" by Miss Edith R. Gilbert, daughter of Mr. Felix Gilbert, managing director of the Aragaz Tank Steamship Company, Ltd. The following are a few of the chief characteristics of the vessel :—Length over all, 400 ft. ; breadth extreme, 50 ft. 3 in. ; depth moulded, 30 ft. 3 in. ; the deadweight is 7,200 tons on a moderate draft of water. The liquid cargo will be carried in eight double tanks. Amongst those present at the launch were :—Mr. Felix Gilbert, Miss Edith R. Gilbert, Mrs. Appleby, Mr. Edwin L. Orde, Mr. D. R MacDonald, Mr. Turpin (of Messrs. F. J. Trewent & Proctor, who have inspected the vessel on behalf of the owners), Mr. and Mrs. Ellis, Mr. D. Myles, Captain and Mrs. Reid, Mr. A. Culston, Mr. Ernest White, and Mr. E. W. Frazer Smith.

In responding to the toast "Success to the Owners of the 'Aragaz,'" proposed by Mr. Edwin L. Orde, Mr. Gilbert said that the owners considered it very fortunate that they were able to place additional orders with Messrs. Sir W. G. Armstrong, Whitworth & Co., Ltd., for tank steamers, as the previous steamers built for them by the same builders have given the utmost satisfaction.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended April 4th was 115,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended April 5th was 313,680 poods, or about 5,059 tons. The total production for the year from January 14th to April 5th was 3,376,155 poods, or about 54,454 tons. The total production for the corresponding period last year was 3,364,725 poods, or about 54,270 tons. Price of crude oil at Baku is now 40 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended April 4th was 24,043 poods, or 387 tons.

European Oilfields Corporation, Ltd. — The production for the week ended April 5th was 107,600 poods, or 1,735 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended April 4th was 125,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended April 4th was 19,898 poods (321 tons).

Maikop New Producers, Ltd.—Production for week ended April 4th was 6,940 poods (112 tons).

British Maikop Oil Company, Ltd.—Production for week ended April 5th was 12,177 poods, or 196 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended April 4th, 94,838 poods, or 1,530 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended April 7th was 470,971 poods, or 7,596 tons. Corresponding period last year, 1,685 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended April 5th was 86,533 poods, or 1,396 tons.

Maikop Midland.—Production at Krimskaya for week ended April 4th was 4,800 poods, or 77 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended April 4th was 18,869 poods (304 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended April 4th was 1,265 poods (20 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended April 4th was 3,100 poods, or 50 tons.

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# THE WORLD'S OIL EXHIBITION.

## A PICTURESQUE CLOSING CEREMONY.

The World's Oil Industries Exhibition closed its doors at Earl's Court last Saturday, after having had a successful fortnight's run, and the occasion was made very interesting by two ceremonies, both of which took place in the centre of the Exhibition Hall.

The general organiser of the Exhibition (Mr. G. D. Smith), in view of the international character of the Exhibition, arranged that there should be an unfurling of various national flags by ladies representing the various nations, and a decidedly pretty ceremony it turned out to be.

There was a very large company present when the time for the closing ceremony drew near, exhibitors and visitors alike swelling the company, so that it comfortably filled the centre of the hall.

Mr. G. D. Smith presided, and he was supported by Dr. P. Dvorkovitz, Mr. D. A. Sutherland, Mr. Gee (representing Messrs. Rhodes & Son, Wakefield), Mr. John Cates (British Petroleum Company, Ltd.), Mr. Abbott (the E. W. Bliss Company), Mr. Arthur W. Bray, and others.

The proceedings commenced by a brief statement by Mr. Smith as to the Exhibition which was then about to close. He said that though it had not possibly been quite as representative nor as comprehensive in its character as some would have desired, it had indeed been a brave show, and, what was more, he was delighted to hear that the various firms who had been exhibiting had been very pleased with the results. A great amount of work and organisation had necessarily to be carried out in the arrangement of such a show, but the ultimate end achieved had fully compensated him for that. He believed in exhibitions of that serious character, and inasmuch as there was to be such a marked development in the importance of the oil industry in the near future, he had already come to he decision to continue his work further, and to hold another International Oil Exhibition in about October of next year. He intended, however, that the next show would be upon far greater lines than the one which they were there to close that evening, and on his part nothing would be spared to make next year's Oil Exhibition a great success from every point of view. He appreciated the importance of having an Exhibition which was really comprehensive in the widest sense of the word, and he had in mind a pro-onged journey through America and the various continental oil-producing regions so as to bring the claims of the Exhibition before those enterprising firms without whose support no Oil Exhibition could be considered complete. He thanked the committee which had assisted him in his present efforts, and also the numerous exhibitors for their support.

Mr. Smith then proceeded with the arrangements for unfurling the various flags, and as each young lady unfurled and waved a large national flag above the assembly, the orchestra played that particular country's National Anthem.

Then when the whole of the flags had been unfurled, the company present, led by the orchestra, sang "Auld Lang Syne," and simultaneously the whole of the centre of the Exhibition Hall was brilliantly lighted by scores of multi-coloured lights.

Mr. John Cates then rose and in a neat speech asked Mr. Smith's acceptance of an illuminated address on behalf of the general body of exhibitors. Mr. Cates explained that the exhibitors desired to place on record their appreciation of Mr. Smith's enterprise and courage in launching those trade and technical exhibitions, which he—the speaker—had no doubt would prove of great value to the petroleum industry as time went on. The exhibitors as a body hoped the address he had the honour to hand over to Mr. Smith would be cherished, and would long remain as a memento of the first serious attempt to organise an International Oil Industries Exhibition. In conclusion, Mr. Cates expressed the hope that the recipient would be long spared to carry on the great exhibition work with which he had so prominently identified himself for many years past.

The address was then unveiled: it was a magnificent example of the artist's work completed in numerous colours with several water paintings to relieve the gold, red, and blue ornamental background. At the top of the address at the respective corners was a fine reproduction of a Diesel engine and an automobile, while on the left-hand centre was a particularly natural reproduction of a group of Russian derricks, the water colour on the opposite side being that representing a portion of an oil refinery.

The Mexican Eagle Company's gigantic oil-tanker—the "San Fraterno"—forms a fitting bottom centrepiece, upon either side being reproductions of show bottles containing various petroleum products. There is the detail revealed in all the water colours which imparts to the address a richness not usually associated with such works. The wording of the address, which is executed in Roman characters, speaks of the courteous attention which Mr. Smith has shown to the exhibitors as a body, and the hope is expressed that Mr. Smith may long be spared to be associated with the petroleum industry. Then follows the names of eighteen subscribing firms, they being as under:—

Anglo-American Oil Company, Ltd.; Anglo-Mexican Petroleum Products Company, Ltd.; Benjamin & Co., London; Benkendorff & Co., Baku; Bowring Petroleum Company; E. W. Bliss Company; British Petroleum Company, Ltd.; Compayne, Ltd.; The Holland Drilling Company; J. F. Lucey Company; Oil Well Engineering Company, Ltd.; *Oil News*; *Petroleum*, Berlin; PETROLEUM REVIEW; J. Rhodes & Son, Wakefield; the Steaua-Romana; Tranzl, Vienna; and Messrs. Wert Conrad, Ltd., Heerlem.

Mr. Smith, in accepting the address, expressed his pleasure at being associated with such prominent firms in the petroleum industry, and thanked the subscribers for the very practical way in which they had shown their appreciation of his efforts.

Mr. D. A. Sutherland then proposed a hearty vote of thanks to Mr. John Cates for having presented the address, speaking eulogisingly of that gentleman's kindness in performing the ceremony at such short notice.

The National Anthem was then played, and the first World's Oil Industries Exhibition closed its doors.

# NEW ENGLISH COMPANIES.

### PETROLEUM AND INDUSTRIAL TRUST, LTD.

Registered on April 1st, by P. G. C. Shaw, 4, Clement's Inn, Strand, W.C. Capital, £10,000 in 4s. shares. Objects: To carry on the business indicated by the title, also to enter into an agreement with F. W. Hemmant. Minimum cash subscription, 100 shares. Signatories: H. Lea, 62, London Wall, E.C.; A. H. Dwight, 44, Ealing Park Gardens, Ealing, W.; W. G. Griffiths, Finsbury Court, E.C.; A. R. Welchman, 9, Old Jewry Chambers, E.C.: R. Biggar, 27, Talgarth Road, West Kensington, W.; W. C. Biggar, 7, Amos Road, The Grove, Hammersmith, W.: and L. J. Marks, 88, Fenchurch Street, E.C. First directors (who are to number not less than two nor more than seven) are H. H. Utting, 88, Fenchurch Street, E.C., and F. W. Hemmant, Finsbury Court, E.C. Qualification, 100 shares. Registered office, Finsbury Court, E.C.

### ROMANE OIL CORPORATION, LTD.

Registered on March 30th, by C. Adler, 3, Throgmorton Avenue, E.C. Capital £100, in £1 shares. Objects: To establish and assist, etc., companies in connection with oil or other substances, and to carry on the business indicated by the title. Signatories, A. H. Evans, 424, Mile End Road, E., and L. J. Webb, 13, Strathleven Road, Brixton, S.W. First directors (who are to number not less than two nor more than five) are not yet appointed. Remuneration of directors, £50 each per annum (chairman, £75). Registered office, 48, London Wall, E.C. Private company.

### ALGIERS OIL TRUST, LTD.

Registered on March 30th, by C. Adler, 3, Throgmorton Avenue, E.C. Capital £2,500, in 5s. shares. Objects: To acquire oil and other lands, and to carry on the business of dealers in oil, etc.; also to enter into an agreement with Romane Oil Corporation, Ltd. Minimum cash subscription, 100 shares. Signatories, G. H. Bowkett, Oxenden Park Drive, Herne Bay; J. B. Beer, 30, Gerrard Street, W.; G. F. Potbury, 66, Tavistock Road, Westbourne Park, W.: L. J. Webb, 13, Strathleven Road, Brixton, S.W.: A. H. Evans, 424, Mile End Road, E.; E. D. Harris, "Rothbury," Woolstone Road, Catford, S.E.; and J. C. Johnson 6, King's Mansions, S.W. First directors (who are to number not less than two nor more than seven) are G. H. Bowkett, J. B. Beer, and G. F. Potbury. Qualification, 50 shares. Remuneration, £50 each per annum (chairman, £75). Secretary and registered office, F. Kelly, 48, London Wall, E.C.

### THE CAUCASIAN INVESTMENT COMPANY, LTD.

Registered on March 31st, by P. T. O. Boult, 42, Old Broad Street, E.C. Capital, £15,000 (14,750 ordinary shares of £1 each and 5,000 founders' shares of 1s. each). Objects: To acquire oil, petroleum, and mineral-bearing lands, and claims and options over same in the Russian Empire and elsewhere, and to carry on the business of petroleum and oil refiners, etc. Minimum cash subscription, seven shares. Signatories: A. G. Kent Johnston, H. W. Hall, A. May, H. Bradburne, all of 42, Old Broad Street, E.C.; H. Bennett, 22, Mount Pleasant Road, Tottenham, N.; G. R. Fowler, 38, Bushey Hill Road, Camberwell, S.E.; and S. Eady, 56, Morley Road, West Ham, E. First directors (who are to number not less than two nor more than seven) are P. T. O. Boult and T. H. Sunlan. Qualification, 100 ordinary shares of £1 each or 50 founders' shares of 1s. each. Remuneration (other than managing director), £100 each per annum (chairman, £200). Secretary and registered office, H. W. Hall, 42, Old Broad Street, E.C.

### BRITISH EAST INDIA OIL COMPANY, LTD.

Registered on March 31st, by Ashurst, Morris & Crisp, 17, Throgmorton Avenue, E.C. Capital, £150,000 in £1 shares. Objects: To acquire oil wells at Yenangyaung and elsewhere, and to carry on any business transaction or operation in connection with any oil-bearing or other mineral properties, etc. Minimum cash subscription, ten shares. Signatories include A. C. Grant, Moor Cottage, Dormansland, Surrey; G. C. Kwamm, 123, Cromwell Road, S.W.; A. Mitchell, 7, Elm Grove, Cricklewood, N.W.: P. Strand, 24, Raneleigh Gardens, Barnes, S.W.; G. E. Bunbury, 48, Curzon Street, Mayfair, S.W.: and A. J. McLeod Wylie, 23, Ashchurch Grove, Shepherd's Bush, W. First directors (who are to number not less than two nor more than five) are G. E. Bunbury and H. Edwards, 68, Blenheim Crescent, Notting Hill, W. Qualification, £100. Remuneration, £200 each per annum (chairman, £300).

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# MISCELLANEA.

## THE EXPLOITATION OF RUSSIAN STATE OIL-LANDS.

### Deputation of Petroleum Producers.

A DEPUTATION of the Baku petroleum producers ias been received by the Premier, the Minister of Frade and Industry, and the Minister of the Navy, in order to discuss the question of the State exploitation of petroliferous deposits. The deputation has pointed out to the Ministers that the current rumours regarding his intended step by the Government are causing a risis of the petroleum industry, which must also be letrimental to the interest of the State. A special ninisterial committee will be formed in order to discuss his question, and measures will be taken in order to ecure a supply of liquid fuel for the Navy, without lamaging the interests of the industry. It is estimated hat the Navy alone will require 80,000,000 poods of uel a year.

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## PETROLEUM DEPOSITS IN GERMAN NEW GUINEA.

AT intervals engineers and geologists have stated the resence in New Guinea of very extensive areas of etroliferous deposits, the question of the exploitation f which has been discussed in the Reichstag, and it as decided that the Government will reserve to itself ie exploitation of petroleum at New Guinea, and a redit of 500,000 marks has been voted for exploration urposes.

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## MPORTS OF PETROLEUM PRODUCTS INTO FINLAND DURING 1913.

THE total quantity of petroleum products imported ito Finland during 1913 amounted to 52,790 tons, as gainst 51,165 tons imported during the preceding year. he above imports include the following products :—

| | |
|---|---|
| Crude oil ... ... ... | 2,342 tons. |
| Kerosene ... ... ... | 36,071 ,, |
| Benzine... ... ... ... | 2,581 ,, |
| Lubricating oils .. ... | 6,773 ,, |
| Paraffin... ... ... ... | 183 ,, |
| Asphalt... .. ... ... | 4,750 ,, |

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## HE ROTARY BORING SYSTEM IN RUSSIA.

THE rotary system of boring has only been introuced into Russia quite recently. There are, however, Baku seven machines now at work, and in addition American firm has sent to Russia seven complete tary installations for Baku and six for Maikop and rimskaya. At Ilskaya a well has been completed by eans of the rotary system in thirty-four days, the depth tained being 2,348 ft. The same American firm has cently sent two complete equipments for the West ral Caspian Company. All the rotary machines in issia are of American manufacture, and are working ider the control of American boring masters.

## NATURAL GAS AT PLOESHTI.

NATURAL gas has now commenced to be of industrial value outside the petroleum fields in Roumania. The administration of Ploeshti has granted to a company a concession of twenty years for carrying natural gas from the fields into the town and suburbs, to be used for industrial and domestic purposes. At the end of the term of the concession all the pipelines and installations will pass to the town. During the period of the concession the town will receive 2 per cent. of the gross income, 6 per cent. of the net income during the first five years, 8 per cent. from the net income during the second five years, and 10 per cent. of the net income up to the end of the concession. The concessionnaires have to sell the gas 10 per cent. cheaper than any liquid fuel, considering the comparative calorific values.

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## IMPORTS OF PETROLEUM PRODUCTS INTO HOLLAND DURING JANUARY.

THE total imports of petroleum products into Holland during January amounted to 12,280 tons, as against 23,147 tons imported during the corresponding month of the preceding year. The above imports include 7,611 tons imported from the United States, 4,422 tons from Belgium, and 2,272 tons from other countries.

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## PETROLEUM INDUSTRY IN THE DUTCH INDIES DURING JANUARY.

THERE were obtained in the Dutch Indies during January 7,610 tons of petroleum at East Borneo and 20,100 tons at Tarakan. The Panolan Company refined during the month 59,290 cases of kerosene.

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## ROUMANIAN PETROLEUM PRODUCTION DURING FEBRUARY, 1914.

THE production of crude oil on the Roumanian oilfields during February amounted to about 133,000 tons, as against 139,523 tons obtained during the preceding month, thus showing a decrease of 6,500 tons. The production of the principal firms was as follows :—

| | Tons. |
|---|---|
| Romana-Americana ... ... ... | 34,375 |
| Astra-Romana ... .. ... ... | 31,249 |
| Steaua-Romana ... ... ... | 25,937 |
| Colombia ... ... ... ... | 3,101 |
| Concordia ... . .. ... | 6,687 |
| Orion ... ... ... ... ... | 5,677 |
| Roumanian Consolidated Oilfields, Ltd. ... ... ... ... ... | 4,622 |
| International .. ... ... ... | 3,673 |
| Trajan Roumanian Oil Company ... | 1,358 |
| Aquila Franco-Romana ... .. | 1,286 |
| Alpha ... ... ... ... ... | 1,427 |
| Nafta ... ... ... ... ... | 3,044 |
| B. Margulies .. ... ... ... | 1,046 |

## THE CHEAPNESS OF THE ROTARY SYSTEM OF BORING.

By Engineer R. TITUS.

Under this heading Mr. R. Titus, writing in the *Neftannoie Dielo*, expounds the comparative cheapness of the rotary boring system, which, in his opinion, has a brilliant future. Taking the present cost of boring at Baku, the author estimates this for a depth of 600-700 metres at 156,000 roubles, and with such costly boring there cannot be, in his opinion, any question of profits. This high cost of boring the author attributes entirely to the Canadian system, and thinks that with the present progress of boring it is quite easy to reduce the cost of same by abandoning the old methods and adopting the rotary method of boring. With the latter the number of hands required is the same as for the Canadian boring—viz., two engineers, two boring masters, two electricians, one smith (with an assistant), one carpenter, six boring assistants, and seven or eight unskilled hands.

Taking Roumanian conditions, the wages amount to 75-80 francs a day. The use of electric energy—viz., 30 h.p.—reckoning 3 centimes per h.p. per hour, including lubricating oil, etc., amounts to 107.40 francs. Adding various expenditures and amortisation to the cost of boring instruments, the expenditure will amount to 150 francs a day. By careful administration of the work 600-700 metres can be passed in 40 to 50 days; taking another 20 days for unforeseen waste of time, and 48-50 days for shutting off waters, the boring of such a depth will demand 120 days and will cost 18,000 francs. The cost of pipes will be 24,000 francs, hydraulic engine, with small motors, dwellings, etc., another 18,000 francs, so that the total cost of a complete boring will be 60,000 francs, which, in comparison with the cost of boring at Baku, is just one-tenth of the latter, and the author considers the transfer of the Canadian system to the rotary system will be a real salvation to the Baku petroleum industry.

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**Publicity.**—All enterprising firms advertise in the Review. Shall we quote you Rates? Send a postcard to—Advertisement Manager, Review Offices, 45, St. Mary Axe, London, E.C.

## THE RADIO-ACTIVITY OF NATURAL GAS.

A very interesting work of Mr. E. Czapo has been published in one of the foreign scientific reviews with regard to his investigation of natural gases and their contents of helium and other radio-activity. Mr. E. Czapo's method was as follows:—

Gases cooled by liquid air have been passed through an absorber filled with charcoal prepared from cocoanuts. This latter retained the methane, nitrogen, oxygen, argon, and all gases, with the exception of helium, which was then collected into a separate measure glass. The results of the various gases were as follows:—

| Natural Gas from | Percentage of Helium. |
|---|---|
| Kissarmas ... ... ... ... | 0·0014 |
| Pechelbrunn ... ... ... ... | 0·0063 |
| Elsatian deep well ... ... ... | 0·38 |
| Gneisenau mines ... ... ... | 0·0067 |
| Wildbad mineral source ... ... | 0·71 |

The radio-activity was tested according to Engler's and Sivekind's methods. Although the activity is proportional to the quantity of helium, it does not correspond to the rate of the composition of substance at which that quantity of helium should have been formed.

The author calculates that from one well alone 25,500,000 litres of helium are being evolved, which points to the fact that the processes of the composition in the interior of the earth are very energetic, and that the quantity of helium formed is very large, which naturally plays an enormous part in the question of calorific phenomena taking place in the earth's crust. The question is of great interest, and will probably be more elucidated by further investigations with other natural petroleum gases.

◆

**Taranaki (N.Z.) Oil Wells, Ltd.**—The secretary of the Taranaki (N.Z.) Oil Wells, Ltd., has informed us that the following cable has been received from New Plymouth:—"Heavy blow out of gas and oil 2,350 ft. rotary bore; 100 barrels of oil escaped before securing control."

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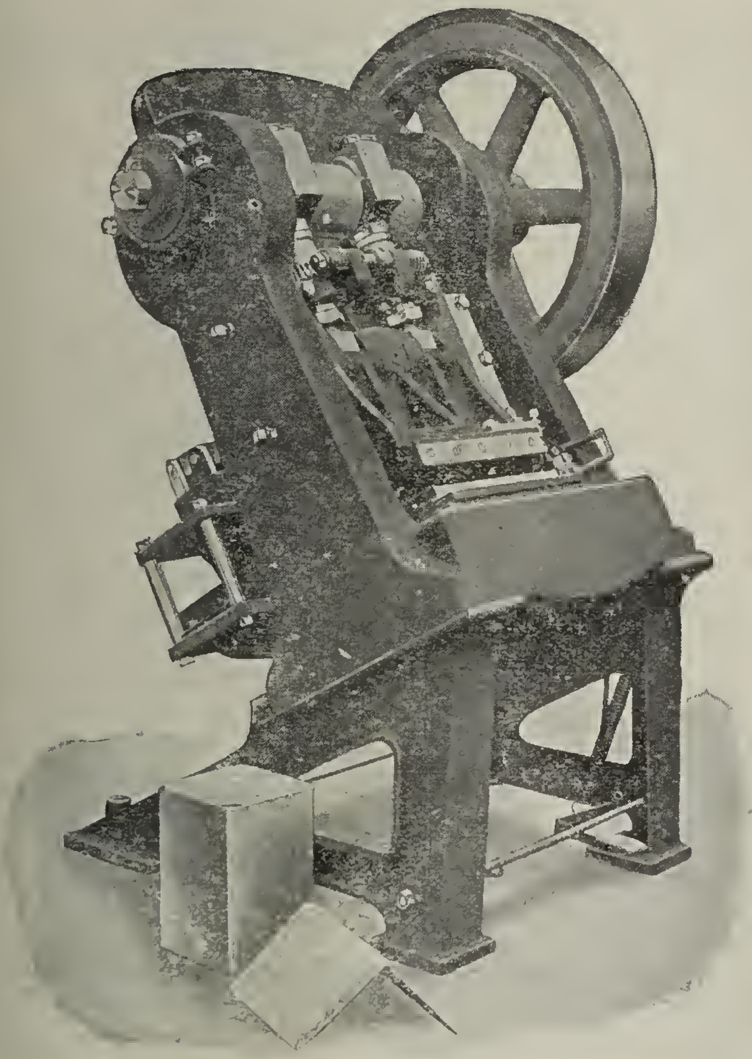

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 12/6-13/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 21/6-22/6 |
| 5% Debentures ... ... | 600.000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{9}{16}$-$\frac{11}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/9-6/3 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319.181 | 10/- | 5/3-6/3 |
| Lobitos Oilfields, Ltd. .. | 400.000 | £1 | 34/6-35/6 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 49/6-50/6 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 23/9-24/9 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{1}{4}$-1$\frac{3}{8}$ |
| " " Ord... | 690,000 | fully pd. | 14/6-15/6 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047,610 | £1 | 5$\frac{3}{8}$-5$\frac{7}{8}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{2}$-10$\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 25/0-25/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 704 | 706 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3.200 | 3,400 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 256 | 258 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,350 | 19,400 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,004 | 1,006 |
| Russian Naphtha Society ... ... | 100 | 214 | 216 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 206 | 208 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

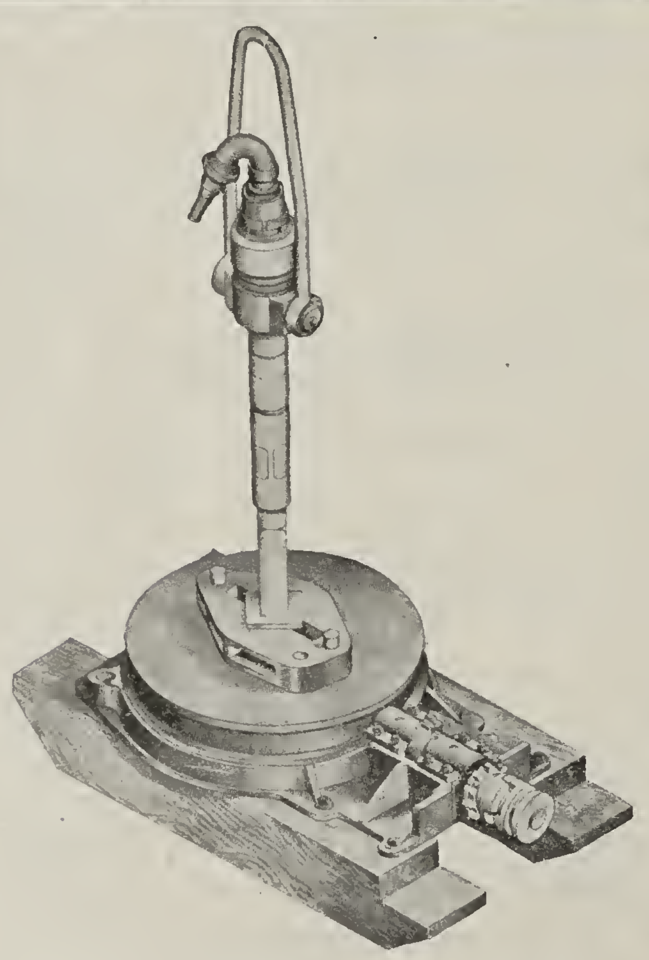
## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 32/9 |
| " 6% Cum. Pref. | 100,000 | £10 | £11 |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 90/6 |
| " Pref. ... ... ... | 250,000 | £1 | 27/9 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 41/3 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 34/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 5$\frac{1}{8}$ |
| " 6% Cum. Pref. ... | 100,000 | £10 | 26/9 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 12/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 66/0 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{3}{4}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 367$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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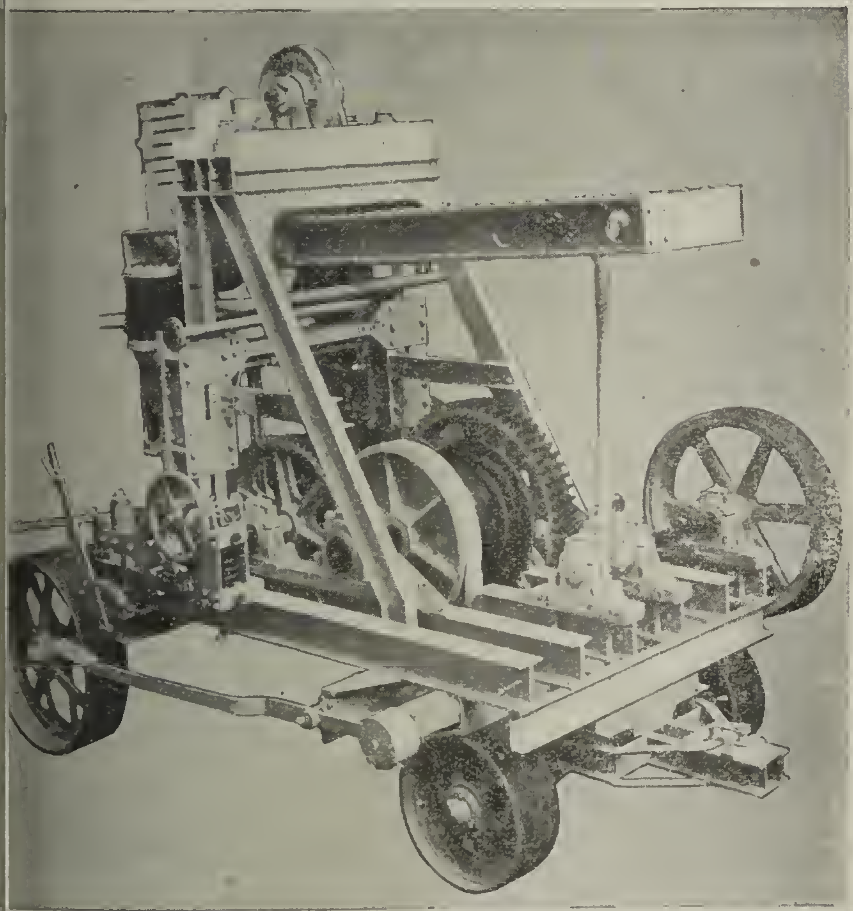

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— THE —
**PETROLEUM REVIEW,**
*45, St. Mary Axe, LONDON, E.C.*
**American Office: 111, Broadway, New York.**

SATURDAY, APRIL 11TH, 1914.

## OUR INCREASING PETROLEUM IMPORTS.

THE official Custom House figures of the imports of petroleum products into the United Kingdom during the first three months of the present year afford ample corroboration, if this were needed, of the oft-repeated assertion that the consumption of petroleum products in this country is increasing in an even greater ratio than is warranted by the augmented production of crude oil.

Up to the end of last month this country imported no less than 109,000,000 gallons of petroleum products—in itself a record figure in the history of our oil trade. The figures are approximately 2,000,000 gallons in advance of those for the corresponding period of 1913, and over 30,000,000 gallons in excess of the imports for the first quarter of 1912. It is gratifying to note that the present high level of our import trade is not due to any abnormal increase in the imports of one particular class of product, but is brought about by the consistent increase in consumption of all classes of products, though naturally this increase is more marked in regard to the expansion of our trade in motor spirit than in any other direction. Steadily rising from quite insignificant proportions, this country's trade in motor spirit to-day stands as the most healthy branch of our oil trade, and from the point of view of the value of the spirit itself, combined with the enormous sums of capital which have been sunk in its distribution, there is no branch that can compare with it in importance.

During the first quarter of the present year we have imported over 27,000,000 gallons of motor spirit, as compared with 23,000,000 gallons for the corresponding three months of 1913, and 15,000,000 gallons for the first quarter of 1912, and substantial as is the present gain upon the figures of this time last year, the figures speak eloquently for the great and continuous increase in the consumption of motor spirit for internal combustion engines in the United Kingdom, for it must not be forgotten that to-day the use of benzol is securing a certain share of the trade. We have on previous occasions voiced our opinions with regard to the use of benzol for power purposes; and there is no need to emphasise the question here. We can only reiterate our conviction, that benzol, while possibly continuing to secure a slight hold upon the British motoring public, will never to any material extent replace or supersede mineral motor spirit, for, quantity for quantity, benzol is far inferior, even if utilised under conditions approaching the ideal.

It is interesting here to notice the remarkable headway which the Far East or "Shell" spirit has made in this country during the past few years. For instance, of the total quantity imported for the first quarter of the present year, over 17,000,000 gallons has come from the prolific "Shell" fields, the remaining 10,000,000 gallons being split up between Russia, the United States, Roumania, and Mexico. Russia is certainly making headway with its motor spirit trade with this country, for whereas for the corresponding period two years ago Russia did not send a single gallon to this country, her imports for the first quarter of the present year hav been over 5,000,000 gallons, or four times as much has been received from the United States field Mexico, too, is now figuring in this respect, her mot spirit imports, marketed under the name of "Mex spirit, having been upwards of 760,000 gallons for th first quarter of 1914.

As we have already made clear, the steady increas in our petroleum imports is shared by practically a classes of petroleum products, and with the on mentioned exception of motor spirit, the United State continues to be our chief supplier. For instance, i regard to our 38,000,000 gallons of illuminating oil fo the first three months of the present year, no less tha 29,000,000 gallons came from the States, while of ou lubricants, which totalled nearly 16,000,000 gallon nearly 13,000,000 gallons came from American port Of our gas or solar oil imports, we are almost totall dependent upon America, while in regard to fuel oi though Roumania is sending increasing quantities, th vast bulk has come from Mexico and the States.

Taking the import figures all round, they show decidedly healthy state of things, and when on recollects the satisfactory prices which are bein received for the imported products, it can safely b said that the petroleum import trade of the Unite Kingdom is in a particularly flourishing state.

◆

## IMPORTS OF PETROLEUM PRODUCTS INTC GERMANY DURING JANUARY.

The imports of petroleum products into German during January amounted to 186,481 tons, as agains 157,354 tons imported during the corresponding mont of 1913. The imports of the various products were a follows:—

| From | Kerosene. Tons. | Benzine. Tons. | Lubricating Oils. Tons. | Solar Oils. Tons. |
|---|---|---|---|---|
| Austria ... | 18,425 | 3,156 | 3,973 | 5,583 |
| Dutch Indies ... | — | 5,917 | — | — |
| Russia ... | 1,666 | 612 | 13,771 | — |
| Roumania ... | 5,194 | 12,889 | 2,716 | — |
| United States ... | 91,567 | 258 | 17,689 | 679 |
| Other countries.. | 19 | 447 | 175 | 300 |
| Totals ... | 116,871 | 23,279 | 38,324 | 6,562 |

Besides the above products, there were also imported 81 tons of crude oil, 75 tons of liquid fuel, and 1,289 tons of paraffin.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO APRIL 4th, 1914.

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IN GALLONS.

| Country. | Illuminating. |  | Lubricating. |  | Residuals. |  | Gas Oil (Solar). |  | Benzine. |  | Fuel Oil. |  | Other Descriptions. |  | Totals. |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1. | Since Mar. 30. | From Jan. 1 |
| **Belgium** .. | — | — | 9,670 | 168,500 | — | — | — | — | — | 32,220 | — | — | — | 1,350 | 9,670 | 202, |
| **Canada** .. | — | — | — | 4,400 | — | 26,180 | — | — | — | — | — | — | — | — | — | 30, |
| **Dutch Indies** | — | — | — | — | — | — | — | — | — | 14,592,070 | — | 83,400 | — | — | — | 14,675. |
| **Germany** .. | — | 25,050 | 17,190 | 672 410 | — | — | — | — | — | — | — | — | — | — | 17,190 | 697.4 |
| **Holland** .. | — | — | — | 2,680 | — | — | — | 55,000 | — | 2,411.180 | — | — | — | 590 | — | 2,469.4 |
| **Mexico** .. | — | 2,242,970 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,332,310 | — | — | — | 5,341,2 |
| **Roumania** .. | — | 5,442,910 | — | — | — | 875,000 | — | — | — | 1,184,880 | — | 1,207,910 | — | — | — | 8,710.7 |
| **Russia** . | — | 1,495,760 | 181,540 | 1,870,910 | — | — | — | — | — | 5,127,880 | — | — | — | — | 181,540 | 8,494,5 |
| **U.S.A.** .. | — | 28,581,510 | 450,250 | 13,199,990 | 19,750 | 56,940 | 3.200 | 21,763,340 | — | 2,600,410 | — | 1,862,530 | 3,870 | 160,210 | 477,070 | 68,224,9 |
| **Other Countries** | — | — | 1,870 | 120,190 | — | — | — | — | — | — | — | 4,150 | — | — | 1,870 | 124,3 |
|  |  | 37,788,200 | 660,520 | 16,050,910 | 19,750 | 958,120 | 3,200 | 21,818 310 | — | 26,702 810 | — | 5,490,300 | 3,870 | 162,150 | 687,340 | 108,970,8 |

# RUSSIAN AND ROUMANIAN NOTES.

## RUSSIAN.

**Fall in Prices of Kerosene.**—In view of the close of the winter season, the prices for kerosene in the Volga district have been reduced by 20 copecs per pood.

**The Opening of Navigation.**—On March 8th last navigation was opened, and many steamers left the port. Last year the first teamers did not leave until March 21st.

**Oleonaft Company.**—The Oleonaft Company has bought over he refinery of Adamoff, which it is now reconstructing. The new refinery will be provided with modern machinery.

**Deals in Liquid Fuel.**—Various deals have been concluded during the pa-t fe.v days at Astrakhan for liquid fuel by the navigation firms at the uniform price of 42 copecs at Astrakhan.

**The Kavkas and Mercury Shipping Company.** — The Kavkas and Mercury Shipping Company is now completing twelve motor-driven vessels to be ready for the opening of the next navigation season.

**Leases of New Plots in the Kuban Province.**—Auctions or leases for thirteen new plots in the Maikop district will be pened at Ekaterinodar on September 6th next, and for five plots n the Ekaterinodar district on September 14th next.

**Siezd of the Kuban Petroleum Producers.**—The siezd of he Kuban Petroleum Producers has recently taken place at Ekaterinodar. Among other measures discussed was the increase of the per pood tax for the needs of the siezd by 1½ copecs.

**Annulling of Leases of Plots.**—The Senate has annulled he auction leases concluded on May 30th last year for new State petroliferous plots. The Council of Ministers has sanctioned this measure of the Senate, notwithstanding the protests of interested parties.

**New Baku Bank.**—A new Baku bank, under the name of Baku Commercial Bank, has been established at Baku with a apital of 3,000,000 roubles in 12,000 shares of 250 roubles each, for he purpose of promoting the petroleum industry and all branches ssociated with it.

**Deals for the New Navigation Season.**—Messrs. Nobel Bros. have arranged with various steamship owners for the shipping of 11,000,000 poods of oil from Astrakhan up the Volga. During he last year the total of petroleum products shipped by Messrs. Nobel Bros. up the Volga amounted to 98,647,946 poods.

**The State Revenue in the Caucasian Mining District.**—The State revenue in the Caucasian mining district for 1913 amounted to 11,675,397 roubles, including 156,715 roubles for leases f petroliferous plots, 10,853,604 roubles for rent, and 131,368 roubles as tax per dessiatine for the right of explorating petroleum.

**Filling-in of Bibi-Aibat Bay.**—The Mining Department has addressed the owners of the plots on the Bibi-Aibat Bay area with a demand to complete the payments of the expenses in connection with the Bibi-Aibat Bay—viz., 30,000 roubles per plot, payable in wo parts of 15,000 roubles each, of which the first payment was due on March 10th, and the second will be due on May 6th.

◆

## ROUMANIAN.

**Bustenari-Puturosu.**—Well No. 32 of the International continues to yield 20 tons a day from a depth of 150 metres. Wells Nos. 1 and 2 of H. Thumann produce 25 tons a day each.

**Steaua-Romana.**—The production of this company during the past week has fluctuated between 908 and 1,033 tons a day. There are in eruption wells Nos. 116 Bucea and 233 Chiciura.

**Activity on the Fields.**—There is great activity on all the ields, the result of which will soon be noticeable. At present there s an increase in the production on the Steaua-Romana's field at Campina.

**Romana-Americana.**—The production of this company is maintained at 1,140 tons a day, of which 1,085 tons are obtained at Moreni. Well No. 8 P at Moreni continues to yield 300 tons a day by eruptions.

**Chiciura.**—Well No. 2 of the Chiciura Oilfields, Ltd. now has its water isolated and produces 10 tons a day. There are now seven wells in boring for the Steaua-Romana and twenty wells of other companies.

**Exportation.**—Exportation is at present very active, as owing to difficulties in transport the exports were very much delayed in January and February. An effort is now being made to execute all the transactions formerly concluded.

**Prices.**—Prices of crude oil continue to be firm. The Bushtenari type for prompt deliveries is quoted at 8·45–8·50 francs and the Moreni type at 7·80–8·0 francs. The oil is in very great demand and can practically command any price.

**Astra-Romana.**—The production of this company during the past week averaged 2,128 tons a day, of which 1,766 tons were obtained at Stavropoleos, 231 tons at Bana, 69 tons at Campina, 46 tons at Filipeshti, and the remainder at Baicoi, Glodeni and Runcu.

**Stavropoleos-Moreni Oil Properties, Ltd.**—Well No. 4 of this company at Bana-Moreni has reached a depth of 198 metres, from which depth it has struck the second stratum of petroleum. The oil is of specific gravity similar to that obtained from the first stratum at 181 metres.

**Fire at Filipeshti.**—On March 28th a well of the Roumanian Consolidated Oilfields caught fire and was completely burned out. It is the same well which last autumn gave great eruptions of gas, which lasted so long, and it is owing to the abundance of gas that the well has become ignited.

**Production of the Astra-Romana during March.**—The production of this company during March amounted to 50,778 tons, of which 40,519 tons were obtained at Stavropoleos, 6,667 tons at Bana, 1,522 tons at Campina, 1,498 tons at Filipeshti, and 358 tons at Runcu.

**Prices of Products.**—The prices of products on the interior market are invariably firm. Negotiations continue between the Ministry of Public Works and the large refiners for the purpose of fixing the price for residuals necessary for the railways and other services of the state. A satisfactory result is shortly expected.

**Internationale.**—Well No. 5 of this company at Bordeni-Doftanetz has now reached a depth of 151 metres, where it has struck a stratum of high-grade petroleum. The production of well No. 32 on the north of Bustenari maintains at 20 tons a day. The production of the Gura-Ocnitzei fields continues to be very satisfactory.

**The Fuel Question.**—The Committee of the Roumanian Industries has addressed the Ministry of Trade and Industry with a demand to elaborate measures in order to reduce the price of liquid fuel, and if this is not possible, to allow the Industries the privilege of importing Cardiff coal free of customs duty and at reduced transport tariffs.

**General Production.**—The general production shows a very important increase owing to the strike of several spouting wells of the Astra-Romana at Moreni, among which the most important is the well No. 16 S, which is in violent eruption and continues to yield over 1,000 tons a day. The total production at present amounts to 6,500 tons a day.

**Bordeni-Doftanetz.**—Well No. 19 Concordia maintains its yield of 60–70 tons a day. Well No. 4 of the International Company has struck oil at a depth of 315 metres with a yield of 10 tons a day. Well No. 48 of the Romana-Americana has been drilled to a depth of 350 metres, at which it has struck a new stratum of petroleum. The well is now in eruption. There are now in boring six wells of the Concordia, seven wells of the Anglo-Roumanian, five wells of the Aquila Franco-Romana and fourteen wells of other companies.

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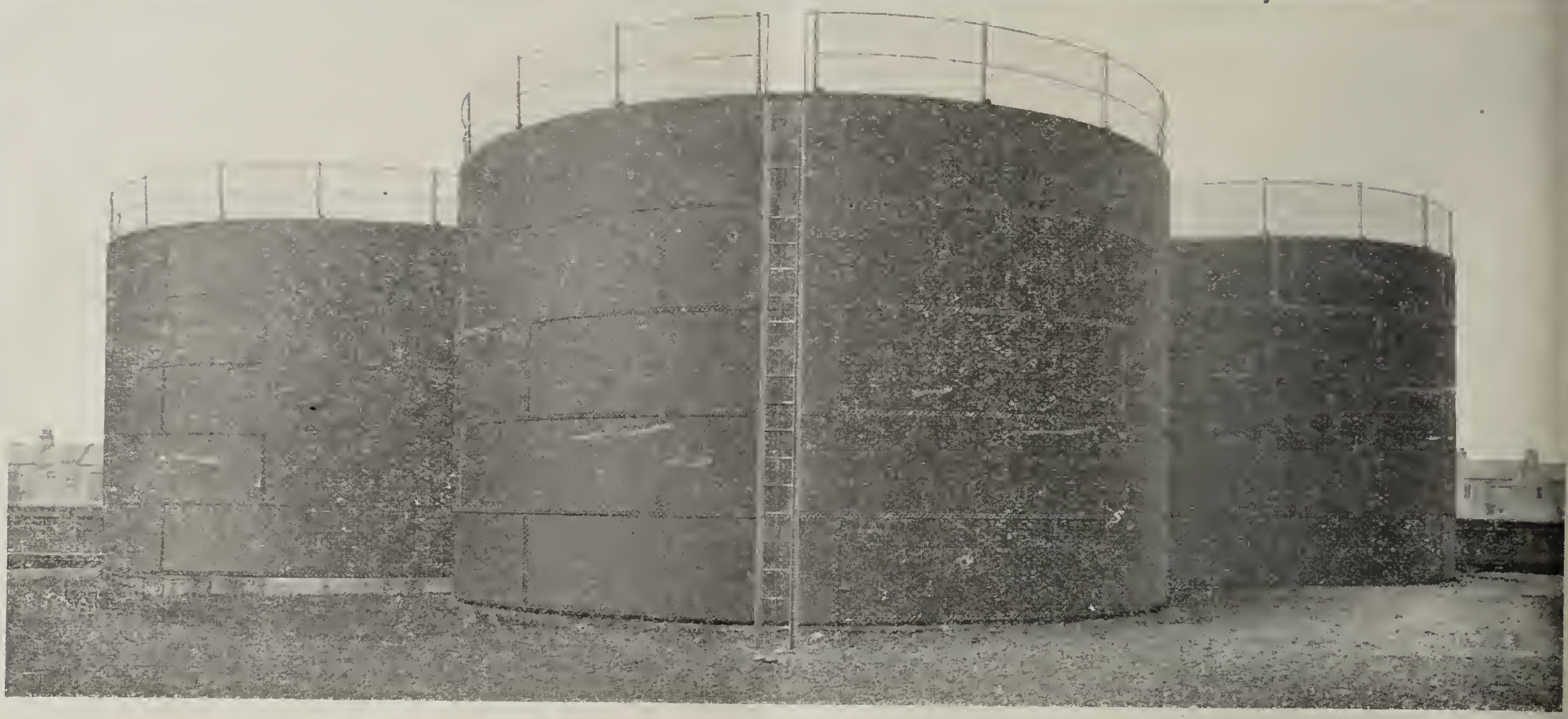

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# PETROLEUM AND ITS DERIVATIVES.

### By DAVID T. DAY, Ph.D.

Dr. David T. Day, of the United States Geological urvey, presented the following valuable paper before he members of the Franklin Institute a few weeks ago, he paper now being reproduced in the *Franklin Institute ournal.* It is of great importance, and we therefore ntend to publish it *in extenso.* It reads :—

It will be the purpose of this lecture first to familiarise ou with such phases of the petroleum industry as ay now seem obscure. Then, with a clearer coneption of these fundamental matters, we can note ow in these later years we are rapidly going further nd actually varying the products obtainable from oil s it comes from its reservoirs deep in the earth. This ill also suggest lines of investigation by which petroleum roducts may be transformed into the essentials of life hould agricultural products fail.

Those who are simply interested broadly in petroleum ill, I trust, take away from this lecture the conviction hat petroleum can be manipulated in many novel ays, that it can at least be made to yield a vast number useful products. Finally, my own faith permits e to offer you the hope that coal, sawdust, or other w-grade carbonaceous material may be converted to our most essential products by change first into etroleum—this complicated mother substance to which e are surely to look in the future for many of our pplies—and you will not be disappointed.

To those of you who are concerned with petroleum vestigation I wish to appeal for co-operation in bringing ese developments to pass. The time is propitious r organisation in petroleum research.

The most mysterious problem in regard to petroleum that of its origin. This is also the problem of least mediate importance to the practical development the subject.

The reason we actually know so little about this queson is because one can count on the fingers of one hand e actual experimental investigations which have en carried on to determine the origin of petroleum, hile no one could state offhand the number of learned en who have occupied volumes with ingenious theories the hope of settling this question by the speculative ethod.

There are a few scientific workers who firmly believe at the source of petroleum has been absolutely ttled. They go further, and state the steps by which e process after another has transformed the original aterial into petroleum as we find it.

The rest of the scientific world is in a more fortunate ndition of doubt—fortunate because in this doubt is necessary to experiment, and to experiment is add to our store of knowledge concerning petroleum elf.

Two reasons make the study of the origin of petroleum ally worth while: First, we want to know whether the sources of supply have been sufficiently great to predict vastly greater amounts of petroleum in the earth than have yet been discovered. Second, we wish to know whether materials exist for furnishing more petroleum, or whether the ancient stores are all we may ever draw upon.

Petroleum is spoken of as "organic" and "inorganic" by the partisans of the different theories of origin.

By "organic," they seem to mean *derived from material once the product of life processes,* such as plants and animals. No one will doubt that petroleum as it exists is an inorganic mineral substance, because the processes by which petroleum has been formed, no matter from what sources, are evidently inorganic, and no one would confuse the oil which we call petroleum with the oils obtained by organic processes, such as the oils of animals and plants.

The theories advanced by the inorganic and by the organic groups of speculators concerning the origin of oil are plausible and interesting.

The general idea of inorganic origin calls attention to the earth as once a mass too hot for any element to exist in combination with another.

Accepting this idea, we know, by the experience with the electric furnace, that when the earth cooled sufficiently for elementary bodies to combine, compounds of metals with carbon—*i.e.*, "carbides"—are among the first to form. They can exist at higher temperatures than other compounds.

As the earth cooled still further other combinations were possible, such as hydrogen with oxygen.

We can think, then, of a primitive "carbide earth," and, as this cooled, water existing as steam in the atmosphere gradually attacked the carbides with the formation of hydrocarbons, including petroleum, which escaped into the air. After such action the earth consisted of the oxidised crust, and a carbide interior would be acted upon more and more slowly, and water penetrating through the crust would, being in smaller amount, first attack those carbides which are more easily decomposed. Occasionally masses of more refractory carbides, such as carbide of iron, carbide of aluminium, etc., would be passed by. Thus sporadic masses of such refractory carbides might remain until modern times, when changes in the earth's crust had provided reservoirs covered with relatively impervious material where our present deposits of petroleum might accumulate.

According to this theory, these processes may still progress.

One of the few experimental investigations as to this theory has been carried out recently by Mr. George F. Becker, United States Geological Survey. He has shown that ammonium chloride, a common constituent of volcanic emanations, when acting upon natural masses of iron, yields its chlorine to the iron, while the hydrogen of the ammonium chloride unites with the carbon in the iron to form petroleum. He has so acted upon natural iron carbide, found in the earth, as to actually make petroleum by such means. In fact, this process can be easily illustrated to you.

Mr. Becker has also called attention to the fact that where deposits of petroleum are known, there the deviations of the magnetic needle are greatest. The association of petroleum with magnetic material, practically iron or magnetite, seems much too close to be accidental, and it may indicate that an important part of the oil is derived from iron carbides; but Mr. Becker does not commit himself to any exclusive theory.

By far the greater number of geologists and petroleum chemists prefer the theory that petroleum has been formed from the various residues of animal and vegetable life, stored in very large quantities in the sedimentary rocks where accumulations of oil are found. These scientists have differed very greatly as to the processes which have transformed organic residues into oil. Prof. Carl Engler and his scientific associate, Prof. Hans Höfer, are convinced that they have followed out the detailed steps of the process. In brief, they believe that in the ordinary processes of animal decay, taking place under ground, the portions consisting of fats remain after the rest of the organism has entirely disappeared. These fats are hydrolised, and the fatty acid portion loses oxygen and becomes oil. The different oils result both from varying original materials and from the varying degrees of heat and pressure by which the material has been distilled, with oil as the end product.

Other scientists do not adhere to so detailed a conception of all the stages of oil formation. Mr. David White, of the United States Geological Survey, has formulated exceptionally clearly the view quite generally held among scientific men. This theory is clear, logical, and consistent. First, by the aid of bacterial fermentation—a biochemical process—the plant and chemical *débris* is partially disorganised, with the formation of new compounds, the decomposition being interrupted at some stage short of complete destruction. Second, by geochemical and geodynamic agencies the buried *débris* is compressed and subjected to a process of distillation which gradually alters the organic substance and drives off volatile matter. When the organic *débris* consists of peat of ordinary types, or of scattered *débris* of vascular types of plants, the organic deposits are transformed to coal or carbonaceous matter in the shales or sandstones, etc. When the organic *débris* consists largely of resinous and waxy plant products, such as spore covers, seed coats, etc., deposited in comparative purity, the geodynamically and geochemically altered material (much volatile matter being involved) forms canneloid coals, such as cannel coal, and when the original organic *débris* contains much algal matter, or matter supposed by most paleobotanists to be algæ, mixed with other plankton material in the muds—that is, when the deposit is "sapropelic"—the partially-altered residues are oil shale, oil rock, boghead, etc. In all these cases the material, whether coal, oil rock, or boghead, is already dynamochemically altered and partially distilled, some of the volatile matter (gases and oils) having already been expelled. The kinds of volatile matter depend on the geological conditions prevailing in each case, and the amount of the volati and the extent of the reduction ("carbonisation" of the residues depend primarily on the energy an duration of the dynamic action, though varying accor ing to the kinds of original *débris* of plants and animal Gases are evolved in all cases, and are still being give off in many coalfields. Oils are believed to be produce by the natural dynamochemical distillation of canne forming *debris*, though the more distinctly "sapropelic matter is supposed to include the principal substanc from which petroleum is distilled in the earth.

In some cases these layers of sapropel apparentl have become indurated into layers of shaly materia which is still in condition to yield oil when under pressur

Whether our bituminous shales have thus originate or whether they owe their organic matter to infiltration is a point which may soon be cleared up.

How long the organic matter remains as saprope before being converted into oil is questionable, bu in my judgment the greater the proportion of the tota period given to the first stage and the shorter the perio assigned to the petroleum after actual formation the more probable the theory.

At this point I would like to express my lack of fait in the conservatism of the statements frequently mad that oil has actually been found in process of formatio from seaweed on the surface of water. Scientifi accuracy seems to be entirely lacking for these obviousl improbable observations.

However the organic matter may have been converte into petroleum, we recognise that the oil was at first scattered in minute drops through the earth, and these gradually collected, largely driven by the superio capillary action of water into such porous rocks as can serve as good repositories, and where the oil is confined by comparatively impervious rocks—usually clays or shales with their capillaries filled with water. During this process of accumulation it is quite possible that the character of the oil has essentially changed. Thus oils which have penetrated into shales are found to be simpler in their make-up than those in other rocks, such as limestones. It would seem from what we find that the shales have taken out part of the original constituents, and I have proved it possible to abstract certain parts of oils merely by diffusing these complex oils through dry clay.

(*To be continued.*)

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## THE PETROLEUM TRADE OF BATOUM.

### Statistics for 1913.

The total imports of petroleum products into Batoum during 1913 amounted to 40,794,078 poods, the total exports abroad to 37,845,501 poods, and the total exports inland to 3,164,494 poods. The following table shows the details of the imports to and exports from Batoum during the year:—

| | Imports. Poods. | Exports. Abroad. Poods. | Exports. Inland. Poods. |
|---|---|---|---|
| Kerosene ... ... ... | 23,819,550 | 22,641,728 | 2,905,085 |
| Lubricating oil ... ... | 11,552,725 | 11,004,496 | 233,581 |
| Residuals ... ... ... | 4,602,307 | 4,076,886 | 16,568 |
| Crude oil ... ... ... | 819,496 | 16,424 | 8,322 |
| Other products ... ... | — | 105,967 | 938 |
| Totals ... ... ... | 40,794,078 | 37,845,501 | 3,164,494 |

# THE PROGRESS OF LIQUID FUEL.

## IMPORTANT ADDRESS BY MR. J. VEITCH WILSON.

(*Continued from page* 370.)

IT is interesting, also, to notice that the next practical and ccessful attempt to utilise liquid fuel was due to difficulties milar to those which confronted Mr. Henderson, viz., the cessity for disposing of residual by-products for which no arket was available. I refer now to the system, introduced by r. J. Holden, for burning, in locomotive furnaces, the tarry sidues produced in the manufacture of Pinch gas for lighting ilway carriages.

Mr. Holden's first patent was taken out in June, 1886, and ows two conical concentric tubes, the inner containing oil, e outer, air. These tubes are surrounded by an annular pipe nveying steam which, through inwardly inclined orifices, delivers eam at the point at which the mixture of steam and oil emerges om the injector proper; this supplementary supply of steam so induces a current of air through the small annular space hich occurs between the injector and the annular steam pipe. r. Holden took out subsequent patents for modification of his rner in 1891 and in 1899.

The records of the Patent Office during the last twenty years e full of specifications of oil burners. To deal with even a lection of these would require more time than we have now our disposal, and as, moreover, the task is one rather for engineer than for an oilman, and, having further regard to e fact that I have undertaken to speak of oil fuel itself, ther than of the means of using it, I shall not further rsue the latter aspect of the subject.

In order, however, to afford you some information regarding odern "Liquid fuel burners," I have pleasure in handing u each a copy of two pamphlets, published respectively by e Anglo-American Oil Company, Ltd., and the British troleum Company, Ltd., in which you will find a good account the principal burners now on the market.

I have hitherto been discussing the history, properties, and es of liquid fuels, which properly fall within the sphere of own observation, but, as a mere layman, the guest of a ghly technical society, addressing an audience of practical gineers, I confess that I feel considerable hesitation in apoaching the subject which I have next set down for consideran. But, as my business and interests are closely related to urs, and as, moreover, mechanical questions have always had peculiar fascination for me. I hope that you will forgive me venturing to express my views upon matters regarding ich you are all better qualified to form an opinion than I be, viz., the relative efficiency of coal and oil as fuel.

The point which I wish to make is that the full benefit to derived from the substitution of oil for coal as fuel is not be attained from the substitution of the former for the ter for steam raising, but from the general adoption of the "nternal combustion" instead of the steam engine. The present ndency seems to be in favour of the use of oil instead of coal raising steam, but while by this change much space may be eased for cargo and economy effected in "bunkering" and in wages bill for stokers, it is evident that the great space quired for boilers is still unprofitably occupied, while all the ubles and dangers incidental to these remain.

We can readily recognise that there are serious difficulties in way of the drastic change which is involved in the latter position. In the first place it is not to be wondered at that amship owners should hesitate to "scrap" the engines and lers upon which they have hitherto depended for power, hough they may be prepared to adopt the middle course of verting their boilers from coal to oil firing. In the second ce there exists the still greater difficulty regarding an adeate supply of the new fuel. Granting, however, that this ter difficulty has been removed, and that adequate supplies liquid fuel have been assured, there still remain other portant questions to be settled.

For, great as have been the advances which have been effected within the last few years, and excellent as modern types may be, there is no assurance that anything like finality has been attained while there are constant rumours of other forms, the gas turbine has long been adumbrated, which may relegate all modern engines to the scrap-heap. Cost, too, is an important consideration, for I understand that, power for power, the internal combustion engine is much more expensive than its precursor, the steam engine, so much so that I have been told that a modern oil engine costs as much as a steam engine and boiler of the same efficiency. Nor is this to be wondered at when we contrast the comparative simplicity of the steam engine with the complications of the oil engine. Compare, if you please, the three or four cylinders and the few moving parts of the former with the more numerous cylinders of the latter, with its array of inlet and outlet valves and all their countless spindles, cams, and tappets. Still, no one who has had, as I have had, the good fortune to see the magnificent productions of Sulser Brothers, Burmeister & Wain, Bolinders or Mirlees Bickerton & Day, can fail to realise that, even in their present stage, these engines mark the advent of a new motive power in the history of the world.

Earlier in my present paper I endeavoured to give you some account of the geological origin of liquid fuel, and I have several times referred to "Combustibles" and to "Supporters of Combustion." Let us now consider, for a few minutes, the various articles which may be included under the comprehensive title "Liquid Fuel" with regard to the nature, properties, and potential value of each.

The efficiency of fuel, of any kind, depends upon its elementary composition, and, as the calorific value of each element as well as the volume of air with its oxygen content required for complete combustion has been determined by many investigators, the value of the fuel may be calculated from these data.

I therefore submit two tables showing the elementary composition of various materials commonly recognised as "combustibles."

The first table is taken from an excellent little work entitled, "A Practical Treatise on Heat," by Mr. Thomas Box. The second was prepared specially for me by the chemists in the Belmont Laboratory.

Should you find any apparent discrepancies between my authorities, I ask you to remember that doctors claim the right to differ.

TABLE I.—(BOX) THE CHEMICAL COMPOSITION OF COMBUSTIBLES, ACCORDING TO PECLET, ETC.

| Elements. | Carbon. | Hydrogen. | Oxygen. | Nitrogen and Sulphur. | Water. | Ashes. | Total. |
|---|---|---|---|---|---|---|---|
| Coal, mean 97 kinds | ·804 | ·0519 | ·0787 | ·02 ·6 | — | ·0408 | 1·000 |
| Coke ... ... | ·850 | — | — | — | — | ·150 | ,, |
| Wood, perfectly dry | ·510 | ·053 | ·417 | — | — | ·020 | ,, |
| ,, ordinary state | ·408 | ·042 | ·331 | — | ·200 | ·016 | ,, |
| ,, charcoal ... | ·930 | — | — | — | — | ·070 | ,, |
| Peat, perfectly dry | ·580 | ·060 | ·310 | — | — | ·050 | ,, |
| ,, ordinary state | ·464 | ·048 | ·248 | — | ·200 | ·040 | ,, |
| Oil of Turpentine... | ·884 | ·116 | — | — | — | — | ,, |
| Alcohol ... ... | ·5198 | ·1370 | ·3432 | — | — | — | ,, |
| Olive Oil ... ... | ·7721 | ·1336 | ·0943 | — | — | — | ,, |
| Sperm Oil ... ... | ·789 | ·1097 | ·1013 | — | — | — | ,, |
| Beeswax ... ... | ·816 | ·139 | ·045 | — | — | — | ,, |
| Spermaceti ... .. | ·816 | ·128 | ·056 | — | — | — | ,, |
| Tallow ... ... | ·790 | ·117 | ·093 | — | — | — | ,, |
| Paraffin Oil ... | ·8522 | ·1478 | — | — | — | — | ,, |
| Resin ... ... | ·7927 | ·1015 | ·1058 | — | — | — | ,, |
| Sulphuric Ether ... | ·6531 | ·1333 | ·2136 | — | — | — | ,, |

Still quoting from Box, we learn that, according to Dulong, the heat evolved by combination with oxygen is 12,906 units per pound of carbon, and 62,535 units per pound of hydrogen.

The presence of oxygen in a combustible containing hydrogen has the effect of reducing its heating power, as the oxygen, to the extent that it is present, combines with the hydrogen to form water, but without evolution of useful heat, whereas, if hydrogen alone be present it yields the full amount of heat due to it.

Let us apply these rules, taking paraffin oil, which has special interest for us, as a material entirely free from oxygen, and alcohol, as containing the highest percentage of hydrogen.

Taking round figures for paraffin oil, we have :—

| | | | |
|---|---|---|---|
| Carbon ... ... | ·852 | × 12,906 = | 10,996 units. |
| Hydrogen ... | ·148 | × 62,535 = | 9,255 ,, |
| | 1·000 | | 20,251 ,, |

Turning next to alcohol, we find that it contains ·3432 of oxygen : but, as oxygen requires one-eighth part of its weight to form water, the oxygen in alcohol will require ·3432 ÷ 8 = ·0429 hydrogen, whereas alcohol contains ·137 of hydrogen. There remains, therefore, ·137 — ·0429 = ·0941 of hydrogen in excess to develop its heat, and we have :—

| | | |
|---|---|---|
| Carbon ... ... ... | ·5198 × 12,906 = | 6,708 units. |
| Hydrogen in excess ... | ·0941 × 62,535 = | 5,885 ,, |
| | | 12,593 ,, |

Let us next deal with olive oil in a similar manner, and we find :—

$$\text{Carbon} \qquad \cdot 7721 \times 12{,}906 = 9{,}965 \text{ units.}$$

$$\text{Hydrogen} \left( \cdot 1336 - \frac{\cdot 0943}{8} \right) = \cdot 1218 \times 62{,}535 = 7{,}517 \;,,$$

$$17{,}482 \;,,$$

But while it is apparent from these figures that the presence of oxygen reduces the calorific value of oils as fuels, it must be equally recognised that its presence promotes combustion and reduces the tendency to smoke with production of soot or carbon. We all know that many vegetable and some animal oils may be burned in open lamps without smoke, *e.g.*, colza or rape, olive, cocoa-nut, even castor and sperm and seal oils, while it is impossible to burn paraffin or petroleum under such conditions on account of the dense volumes of smoke which they give off. In evidence of this statement I now draw your attention to the lamps on the table, which are trimmed with the oils which I have mentioned.

From these facts which I have quoted, and from this little demonstration which I have given you, I think that I am justified in saying that those engineers are in error who object to the use of vegetable oils, pure or mixed with mineral oil, as lubricants for internal combustion engines for fear of the carbonaceous deposits which, they say, these oils are liable to produce. Such is not, I am in a position to assure you, the opinion of some of the leading makers of oil engines in this country, among whom I may mention Crossleys, Tangyes, Hornsbys, Petters, the "Trusty" Engine Company, and others, who use either rich compound or pure vegetable oils.

TABLE II. (BELMONT) ELEMENTARY COMPOSITION OF VARIOUS OILS.

| Material. | Carbon. | Hydrogen. | Oxygen. |
|---|---|---|---|
| Motor Spirit ... ... ... ... | 82·99 | 16·08 | 0·93 |
| Royal Daylight ... ... ... | 85·00 | 14·45 | 0·55 |
| Alcohol, Ethyl ... ... ... | 52·17 | 13·04 | 34·79 |
| Refined Distillate, ·905 ... ... | 87·05 | 12·56 | 0·39 |
| ,, ,, ·910 ... ... | 84·55 | 12·87 | 2·58 |
| Cylinder Oil, Natural .. ... | 84·02 | 13·05 | 2·93 |
| ,, ,, Charcoal Refined ... | 85·43 | 13·17 | 1·40 |
| Huile D. ... .. ... ... | 86·02 | 13·33 | 0·65 |
| Gas Engine Oil, Light .. ... | 85·66 | 12·53 | 1·81 |
| ,, ,, ,, Heavy ... ... | 83·79 | 12·86 | 3·35 |
| Motorine A. ... ... ... ... | 84·45 | 13·04 | 2·51 |
| Tallow Oil ... ... ... ... | 77·4 | 11·8 | 10·8 |
| Cocoanut Oil... ... ... ... | 75·4 | 11·7 | 12·9 |
| Rape Oil ... ... ... ... | 78·0 | 12·0 | 10·0 |
| Castor Oil ... ... ... ... | 74·0 | 11·4 | 14·6 |

Finally I show, in a simple manner, the volume of oxygen required for complete combustion and the quantity of air necessary to provide the oxygen required.

For this table I am also indebted to the chemists of th Belmont Laboratory :—

TABLE III.—(BELMONT) APPROXIMATE OXYGEN AN AIR REQUIRED FOR COMBUSTION.

1 lb. Carbon requires 2·66 lb. Oxygen } For Combustion.
1 lb. Hydrogen ,, 8·00 lb. ,, }
Air by weight = 23 Oxygen + 77 Nitrogen.
,, volume = 21 ,, + 79 ,,
13 cubic feet of air = 1 lb. by weight.
1 lb. of Oxygen in 4½ lb. of air.

| Material. | Oxygen. lb. | 1 lb. Requires Air. lb. | Air. Cubic ft |
|---|---|---|---|
| Motor Spirit— | | | |
| Carbon = ·84 × 2·66 ... | 2·24 | | |
| Hydrogen = ·16 × 8·00 ... | 1·28 | | |
| | 3·52 × 4½ = | 15·84 ... | 206 |
| Royal Daylight— | | | |
| Carbon = ·85 × 2·66 ... | 2·26 | | |
| Hydrogen = ·15 × 8·00 ... | 1·20 | | |
| | 3·46 × 4½ = | 15·57 ... | 202 |
| Lubricating Oil— | | | |
| Carbon = ·85 × 2·66 ... | 2·26 | | |
| Hydrogen = ·13 × 8·00 ... | 1·04 | | |
| | 3·30 | | |
| Oxygen . = ·02 (deduct) ... | ·02 | | |
| | 3·28 × 4½ = | 14·76 ... | 192 |
| Fatty Oils— | | | |
| Carbon = ·76 × 2·66 ... | 2·02 | | |
| Hydrogen = ·12 × 8·00 ... | ·96 | | |
| | 2·98 | | |
| Oxygen = ·12 (deduct) ... | ·12 | | |
| | 2·86 × 4½ = | 12·87 ... | 167 |
| Alcohol— | | | |
| Carbon = ·52 × 2·66 ... | 1·38 | | |
| Hydrogen = ·13 × 8·00 ... | 1·04 | | |
| | 2·42 | | |
| Oxygen = ·35 (deduct) ... | ·35 | | |
| | 2·07 × 4½ = | 9·31 ... | 121 |

*(To be continued.)*

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## PETROLEUM STOCKS AT BAKU.

The stocks of crude oil and petroleum products in the Baku refining district on January 1st, 1914, amounted to 57,128,073 poods. The quantities o various products in store were as under :—

| | Poods. |
|---|---|
| Crude oil ... ... ... ... | 17,338,297 |
| Kerosene ... ... ... ... | 9,157,302 |
| Lubricating oils ... ... ... | 2,131,730 |
| Solar oil, light ... ... ... | 1,178,181 |
| ,, ,, heavy ... ... ... | 695,305 |
| Benzine ... ... ... ... | 1,056,899 |
| Residuals ... ... ... ... | 25,170,795 |
| Lubricating residuals and goudron | 188,101 |
| Other products ... ... ... | 211,463 |
| Total ... ... ... | 57,128,073 |

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## GALICIAN PETROLEUM PRODUCTION DURING JANUARY.

The production of petroleum in Galicia during January was as follows :—

| | |
|---|---|
| Tustanowice ... ... ... | 53,210 tons |
| Boryslaw ... ... ... ... | 17,950 ,, |
| Mraznica ... ... ... ... | 162 ,, |
| Casual oil ... ... ... ... | 473 ,, |

or altogether 71,795 tons, as against 71,890 tons produced during the preceding month.

# Alexandra Docks,
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The Alexandra Docks, Newport, have a deep water area of 135 acres, and the largest single sheet of deep water dock area in the world.

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The new Lock Entrance, which is 1,000 ft. long, by 100 ft. broad, and the largest in the world, will be opened in about six months. The dredging of the deep water channel from the sea is in progress.

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# The American Oil Market.

### Saturday, March 21st, 1914.

The only development of interest in the crude market, says the *Oil Paint and Drug Reporter*, has been the revision of prices in the heavy Texas and Louisiana oils by declines of 5@10c., the light grades being maintained.

Weather conditions have favoured operations in the Eastern fields with the result of a marked gain in completions as well as new production. The best showing so far as new wells are concerned was in Pennsylvania, North-western Ohio, Indiana and Illinois. West Virginia registered a loss of completions, while South-western Ohio and Kentucky were on a par with the previous week's record. The only fields to fall below the former new production record were Pennsylvania and Illinois. The current summary shows 174 completions, 4,695 barrels of new daily production and 56 dry holes, comparing with 152 completions, 2,845 barrels of new daily production and 60 dry holes for the former week. With the advance of spring new impetus will be given to test drilling in the high-grade fields, with the hopes of developing new pools of consequence. In the West Virginia fields during the week, Kanawha county came back with a producer suggestive of the exceptional resources a year ago. The new completion was reported good for 300 barrels the first twenty-four hours in the northern end of the Blue Creek tract in Elk district. Another completion of interest in this State was a 50-barrel well in Doddridge county, which is considerably above the average of late wells in the district. Harrison county was the scene of a well credited with 250 barrels a day in the Sardis district. The deep sand territory of South-eastern Ohio continues to furnish encouraging producers with further encouragement to experimental work. One of the week's completions came in at the rate of 130 barrels a day.

California advices indicate a shortage in fuel oil and residuum, upon which the recent advance in the price of low-grade crude is justified. The discrimination against the product by a leading refining company last year gave impetus to the development of high-grade production, which is now said to constitute 70 per cent. of the State's total output. At the present premium on low gravity oil, a renewal of interest in its production is evidenced, but a further advance will be required, it is believed, to relieve the shortage. The drilling operations which have been quietly carried on in the extreme west and north-west sections of the old Kern River field for the past two years have proved up a large scope of new productive territory that is likely to extend the life of the field for years.

## Refined Products.

The local market for illuminating oil has been without noteworthy development during the week, and the general conditions are rather characterless. Domest consumption is of an entirely routine movemer with the tendency towards slackening with t advance of the season. Export requirements have cor prised a well-maintained volume, 10,134,840 gallons, against 9,730,540 gallons for the previous week. Bu shipments were 4,842,190 and 3,400,000 gallons, r spectively. Since the first of the year local expor have reached 99,283,440 gallons, comparing wi 118,255,725 gallons for the corresponding period la year. From all parts covered in our statistical summary totals have been 173,067,360 gallons for 1914 ar 193,924,297 gallons for 1913. A dull charter market h prevailed over the week, and no bookings for forwar shipments have been traced. Quotations remain u altered for all varieties, and the market retains nominally steady tendency.

## Lubricating Oils.

The week's developments have contributed nothir of interesting significance to the lubricating products.

### CLOSING QUOTATIONS.

### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. March 21. | 1914. March 2 |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.50 | $2.50 |
| North Lima ... ... ... ... | 1.37 | 1.49 |
| South Lima ... ... ... ... | 1.32 | 1.44 |
| Indiana ... ... ... ... ... | 1.32 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.25 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.88 | 1.05 |
| Humble, Tex. ... ... ... ... | 0.85 | 0.95 |
| Saratoga ... ... ... ... ... | 0.85 | 0.90 |
| Sour Lake, Tex. .. ... .. ... | 0.85 | 0.90 |
| Californian, Coalinga light ... ... | — | 0.85 |
| „ Kern River heavy ... | — | 0.35 |
| Canadian Oil ... .... ... ... | 1.77 | 1.89 |

### Refined—For Export.

| In cents. | | Week ended March 2 | |
|---|---|---|---|
| | | S.W. 110 test. | W.W. 150 tes |
| Bulk, New York ... | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo | ... ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... | ... ... | 8·75 | 9·75 |
| Cases, New York ... | ... ... | 11·25 | 12·25 |
| Cases, Philadelphia ... | ... ... | 11·25 | 12·25 |

### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 21 |
| Gasoline, 86 deg. ... ... .. ... ... | 29½ |

### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½- |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 3,478,685 | 62,850,255 | 28,633,259 |
| Refined ... ... | 23,135,410 | 173,067,360 | 193,924,297 |
| Naphtha ... | 2,820,495 | 20,701,465 | 23,265,165 |
| Gas oil ... ... | 868,940 | 12,005,625 | 10,830,535 |
| Fuel oil... ... | 613,250 | 17,264,995 | 19,306,865 |

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & CO., 61, St. Mary Axe, E.C.

April 9th, 1914.

The market prices of Refined Petroleum are as llows:—Russian, 7¾d.; American, 8d.; American ater White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS.

Below are the latest quotations :—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current quotation is 65s. per ton, in bulk, ex harf.

### GREASE-MAKING OIL

quoted 70s. per ton, in bulk, ex wharf.

### TURPENTINE.

The spot price of American Turpentine is 31s. 10½d.; ay/June, 32s. 1½d.; September/December, 33s. 4½d.

### MOTOR SPIRIT.

1s. 9d. per gallon is quoted for the best quality, and . 7d. per gallon for the second quality, retail in ondon.

## LIVERPOOL.

April 9th.

Petroleum oils have a steady sale, and former rrencies are asked for Refined, 8¾d. being still quoted r Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, March 8th.

The following are the current prices of the Standard l Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per ease. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, d., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| sing Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| sing Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| ll Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| ll Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| an Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| an Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| chor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| ell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| chor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah l Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| rosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| rmah Wax, per pound, 1st quality ... .. ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... . ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. .. ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, April 9th.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

PHILADELPHIA, April 9th.

Standard White is quoted at 8·75.

## GERMANY.

HAMBURG, April 8th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730; second quality (0·750–0·770 gravity), 32·00–33·00.

## RUSSIA.

BAKU, April 7th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 39½–40 copecs per pood spot. Kerosene, 49–49½ copecs. Residuals, 38½–49 copecs.

## ROUMANIA.

April 7th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·35 |
| ,, ,, ,, | Moreni ... | 7·50–8.00 |
| ,, ,, ,, | Tzintea ... | 6·00–7.00 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10 50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

April 7th.

Crude oil is quoted 7·00 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 710/720, 34 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date 9th inst., as follows :—

The market continues quiet, and makers' prices are firm at last week's rates as under :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 13/4½ to 13/6 per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... | 18/9 ,, 18/10½ ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

Specially prepared for this Journal by the Customs House.

FOR THE 5 DAYS ENDED APRIL 4TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| Mar. | LONDON— | | | |
| 31 | Vacuum Oil Co. ... ... | Lub. | 19,240 | New York |
| 31 | Anglo-American Oil Co. ... | " | 66,200 | " |
| 31 | " " ... | " | 10,000 | Philadel. |
| 31 | B. Jacob & Son ... ... | " | 5,540 | " |
| 31 | Port Authority ... ... | " | 10,200 | New York |
| 31 | Mordaunt Bros. ... ... | " | 5,400 | " |
| 31 | J. Thompson... ... ... | Lub. Gr. | 4,550 | " |
| 31 | Price's Patent Candle Co. ... | Lub. | 5,200 | Boston |
| 31 | Port Authority ... ... | " | 2,360 | Hamburg |
| April. | | | | |
| 1 | Mercantile Lighterage Co. ... | " | 2,000 | New York |
| 1 | Produce Brokers Co. ... | " | 2,600 | Philadel. |
| 2 | Leach & Co. ... ... ... | " | 120 | Ghent |
| 2 | Lubricating & Fuel Oils Co. | " | 2,050 | Philadel. |
| 3 | " " | " | 4,100 | Hamburg |
| 3 | E. G. Boize ... ... ... | Lub. Gr. | 620 | " |
| 3 | Port Authority ... .. | Lub. | 30 | " |
| 3 | N. J. Fenner & H. B. Alder & Co. | " | 280 | Ghent |
| 3 | Bramwell, Fern & Co. ... | " | 7,540 | Philadel. |
| 4 | Pfeifer & Co. ... ... | Lub. Gr. | 620 | Antwerp |
| 4 | Mercantile Lighterage Co.... | Lub. | 11,240 | Philadel. |
| | LIVERPOOL— | | | |
| 31/1 | W. B. Dick & Co. ... ... | " | 2,000 | " |
| 23/2 | Meade-King, Robinson & Co. | M. Colza | 2,600 | Baltimore |
| Mar. | | | | |
| 31 | Burnaby & Chantrell ... | Lub. | 2,610 | " |
| 31 | Meade-King, Robinson & Co. | " | 6,000 | N. Orleans |
| 31 | " " | " | 179,000 | Batoum |
| 31 | F. Guest ... ... ... | " | 7,960 | Baltimore |
| 31 | J. T. Fletcher & Co. ... | " | 390 | Antwerp |
| April. | | | | |
| 2 | Petroleum Products Co. ... | " | 40 | Hamburg |
| 2 | Anglo-American Oil Co. ... | " | 24,400 | New York |
| 2 | Valvoline Oil Co. ... ... | " | 9,640 | " |
| 2 | Vacuum Oil Co. ... ... | Lub. Resid. | 8,480 | N. News |
| 3 | " .. ... | Lub. Oil and Gr. | 6,840 | New York |
| 3 | Huxley & Co. ... ... | Lub. | 3,250 | " |
| 3 | Burnaby & Chantrell ... | Lub. Gr. | 1,460 | " |
| 3 | White Star Line ... ... | Lub. | 2,000 | " |
| 3 | Crew, Levick & Co. ... ... | Lub. Resid. | 11,270 | N. News |
| 4 | Anglo-American Oil Co. ... | Lub. | 11,000 | New York |
| 4 | Vacuum Oil Co. ... ... | " | 3,130 | " |
| 4 | Gracie, Beazley & Co. ... | " | 4,800 | " |
| 4 | Worthington & Boler ... | " | 8,000 | " |
| | BOSTON— | | | |
| 3 | W. F. Beaumont ... ... | Lub. Gr. | 70 | Hamburg |
| | BRISTOL— | | | |
| 4/3 | British Petroleum Co. ... | Gas | 3,200 | Port Arthur |
| 25/3 | Heaton & Co. ... .. | Lub. | 420 | Antwerp |
| 31/3 | Anglo-Bosphorus Oil Co. ... | " | 790 | Hamburg |
| 1 | Pickford's ... ... ... | " | 220 | " |
| 2 | Ford & Canning ... ... | Lub. Oil and Gr. | 26,240 | New York |
| 2 | C. Hill & Sons ... ... | Lub. | 29,440 | " |
| 3 | J. & R. Bush ... ... | " | 20,880 | " |
| 4 | H. Matthews & Co. ... ... | " | 280 | Antwerp |
| | CARDIFF— | | | |
| 31/3 | Bristol Steam Navig. Co. ... | Lub. Gr. | 2,090 | Hamburg |
| 31/3 | A. Payne & Co. ... ... | Lub. | 120 | " |
| 2 | Collins & Partners ... | Lub. Gr. and Bricks | 240 | " |
| | GOOLE— | | | |
| 3 | Goole Steamship Co. ... | Lub. | 120 | " |
| | HARWICH— | | | |
| 30/3 | Great Eastern Railway ... | " | 40 | Antwerp |
| 31/3 | " " ... | " | 880 | " |
| 1 | " " ... | " | 90 | Hamburg |
| 2 | " " ... | " | 1,200 | Antwerp |
| April. | HULL— | | | |
| 1 | T. Wilson, Sons & Co. ... | Lub. | 22,720 | New York |
| 1 | " " ... | " | 1,600 | Stockholm |
| 2 | " " ... | " | 1,840 | Riga |
| 2 | Wilson's & N. E. Railway ... | " | 720 | Hamburg |
| 2 | " " ... | " | 560 | Antwerp |
| 3 | W. Gilyott & Co. ... ... | " | 18,970 | New York |
| | MANCHESTER— | | | |
| 31/3 | Anglo-American Oil Co. ... | Lub. Oil and Gr. | 14,320 | Philadel. |
| 31/3 | Crew, Levick & Co.... ... | M. Colza | 1,270 | " |
| 31/3 | " ... ... | Lub. | 3,020 | " |
| 31/3 | Bramwell, Fern & Co. ... | " | 23,960 | " |
| 1 | J. T. Fletcher & Co. ... ... | " | 40 | Antwerp |
| 2 | D. Currie & Co. ... ... | Lub. Oil and Gr. | 1,590 | Hamburg |
| 2 | McLiners, Ltd. ... ... | Lub. | 21,200 | Philadel. |
| 2 | Liverpool Storage Co. ... | " | 3,310 | " |
| 3 | T. Wilson, Sons & Co. ... | " | 3,740 | " |
| 3 | C. H. Morton & Son ... | " | 2,600 | " |
| 4 | Meade-King, Robinson & Co. | " | 13,000 | " |
| Mar. | NEWCASTLE— | | | |
| 31 | P. H. Matthiessen & Co. .. | " | 180 | Bergen |
| 31 | " " ... | " | 90 | " |
| 31 | Tyne-Tees Steamship Co. ... | " | 3,000 | Antwerp |
| | MIDDLESBROUGH— | | | |
| 31 | E. Harris & Co. ... ... | " | 480 | " |
| | SWANSEA— | | | |
| 31 | Burgess & Co. ... .. | Lub. Oil and Gr. | 2,740 | Hamburg |
| April. | ABERDEEN— | | | |
| 3 | R. C. Reid & Co. ... ... | " | 110 | " |
| 3 | J. Spencer & Co. ... ... | Lub. | 400 | Riga |
| Mar. | GLASGOW— | | | |
| 31 | Clyde Shipping Co. ... ... | " | 1,360 | Antwerp |
| April. | GRANGEMOUTH— | | | |
| 2 | Jas. Currie & Co. ... ... | " | 360 | Hamburg |
| Mar. | BELFAST— | | | |
| 27 | J. C. Pinkerton & Co. ... | " | 520 | " |
| 27 | G. Heyn & Sons ... ... | " | 300 | Riga |
| April. | DUBLIN— | | | |
| 3 | P. Murphy & Co. ... .. | " | 260 | Hamburg |
| 3 | " " ... ... | " | 2,000 | Baltimore |
| | | | 687,340 | |
| | Deduct— | | | |
| | BRISTOL— | | | |
| 4/3 | British Petroleum Co. ... | Lamp | 17,860 | Port Arthu |
| | LIVERPOOL— | | | |
| 23/2 | Meade-King, Robinson & Co. | Lub. | 2,600 | Baltimore |
| 13/3 | " " | " | 2,720 | " |
| 27/1 | Anglo-American Oil Co. .. | Gas | 16,000 | Philadel. |
| 6/2 | " " ... | Lamp | 27,400 | New York |
| | | | 619,760 | |

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# The Petroleum Review.

Founded by PAUL DVORKOVITZ.

VOL. XXX. (*New Series.*) APRIL 18TH, 1914. No. 613.

## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English nd Foreign readers is 26s., including Postage. Single opies may be had at the offices at 6d.*

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*Contributions upon items of interest are always elcomed from subscribers, but in each case these should accompanied with the name and address of the sender, ot necessarily for publication, but as a guarantee of ood faith.*

## Editorial Notes.

### The History of Mexico.

THE enormous importance which is already attaching itself to Mexico in regard to the production of petroleum — which importance is bound to be materially increased as time goes on—renders the comprehensive review hich we publish upon other pages of this issue from e pen of Mr. De Golyer of the greatest possible terest. The author, it should be mentioned, is the ief geologist of the Mexican Eagle Oil Company, td., and his great inner knowledge of the petroleum dustry is such as to warrant anything he writes as ing not only unique in character, but embodying veral facts which have hitherto been quite private owledge. We appreciate the feeling which led the ce-president of the Mexican Oil Association, before hich body the paper was read, to suggest that it ould be filed with the archives of the association d henceforth be considered as an official record of e petroleum industry, and we are sorry that such a mprehensive account of Mexico's growing petroleum dustry has not hitherto been written for public rusal. We feel confident that the paper will not only closely perused, but will be preserved as a reliable cord of the petroleum industry of Mexico and its eat progress.

◆

### California's Petroleum Value.

AN interesting Press bulletin has just been issued by the California State Mining Bureau dealing with the mineral industries of the State, in which a few important facts are given concerning the wonderful growth of Calinia's petroleum industry during the past few years. -day the oil industry of the State, in point of the lue of the produced products, stands far ahead of all ers, though the industry of oil is comparatively ung. During the past twelve months it is estimated State Mineralogist Hamilton that the value of the te's mineral output was approximately $100,000,000, compared with a total value of $91,000,000 for the eceding twelve months, and $43,000,000 for the year 1905. Of last year's total mineral value, the production of petroleum represented $46,000,000, as compared with $41,000,000 for 1912 and $9,000,000 for the year 1905. Thus, while in the past eight years California's mineral output has a little more than doubled itself, the total value of the oil output has increased more than five-fold—a fact full of significance, especially when one recollects the comparative slowness with which a State's petroleum industry is developed.

◆

### Russia and its Oil Fuel Difficulty.

IT is evident that more minds than one are at the present time centred upon the difficult position in which Russia finds itself in regard to the question of liquid fuel, for we note that the large consumers are to meet in serious conference shortly in order to devise means whereby the present abnormal position may give place to an atmosphere of satisfied tranquillity. We are not told who has drawn up the programme for discussion, but if it be adhered to, and the several decisions which will doubtless be arrived at are carried into effect, one of two things seems certain : either the present position will be somewhat improved, or it will be made ten times worse. At this conference it will be urged that the State shall exploit its own petroliferous lands as a preliminary measure to the introduction of a State monopoly of petroleum products ; then it will be seriously suggested that the railways shall have the right to acquire and operate oil lands for their own ends ; and, lastly, it is to be suggested that the present "privileged" tariffs from Baku to Batoum shall be annulled. Should time permit, there will be a discussion upon the question of enacting measures to counteract the activity of the present petroleum concerns. Really, we wonder what it is that the Russian consumers of liquid fuel want.

◆

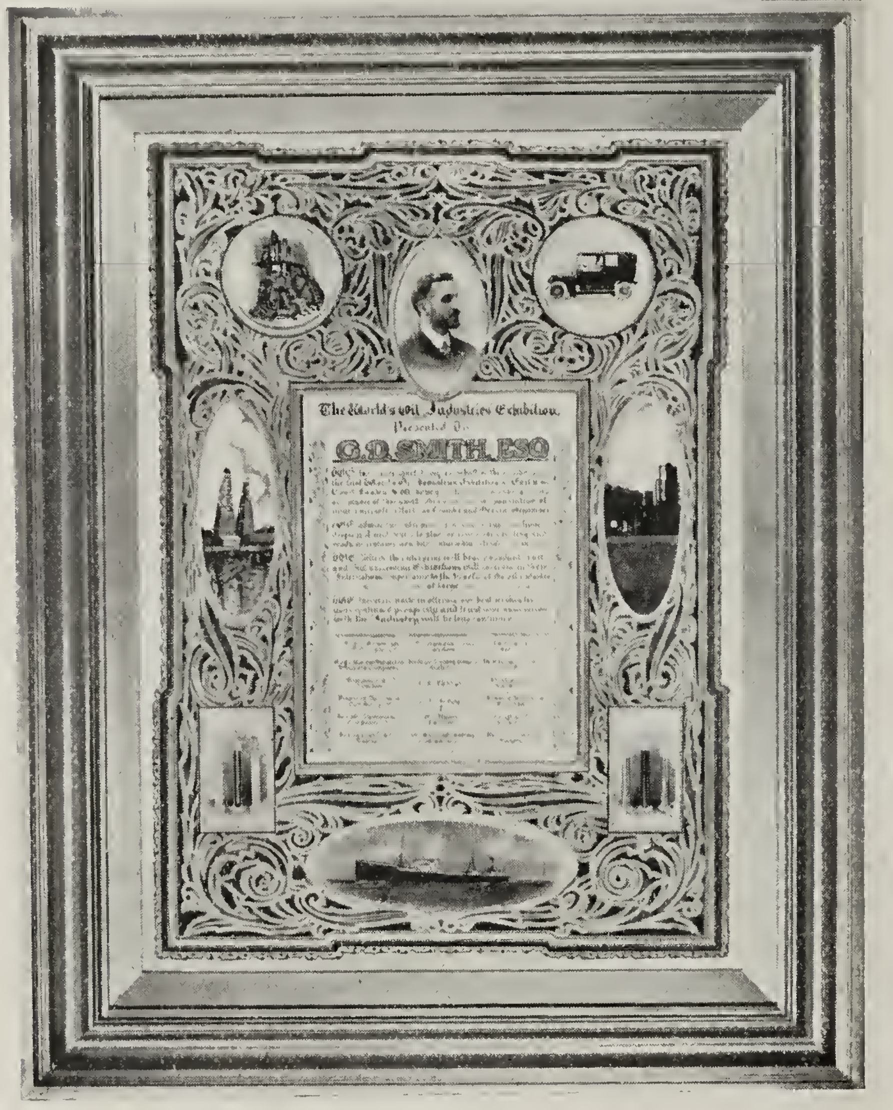
### America's Foreign Petroleum Trade.

WITH the publication of the details of the export of American petroleum products during February, one is able to judge of the continued steady expansion of America's overseas trade in petroleum for the present fiscal year. As is known, the fiscal year is completed with June ; it is therefore possible to note the headway which has been made during the eight months as compared to that for the previous period of the preceding year. The figures for February themselves are somewhat below the high average which has been previously maintained, yet, inasmuch as the decline is but slight, they assist in marking the maintenance of the expansion of America's foreign oil trade. For the eight months of the present fiscal year the total foreign movement of American petroleum products stands well ahead of the figures for a year previously, the gain in the export of illuminating oils alone being over 70,000,000 gallons, while in fuel oils it is over 125,000,000 gallons. The exports of motor spirits are also well maintained, the figures for the corresponding periods of last year being substantially exceeded. In regard to lubricating oils, however, a decline has to be registered which represents a loss of nearly eight per cent. in volume.

◆

## A MEMENTO OF THE RECENT OIL EXHIBITION.

The illustration here published gives an excellent idea of the illuminated address which was presented to Mr. G. D. Smith, the general organiser of the recent Oil Industries Exhibition, at the close of the Exhibition at Earl's Court, S.W., last Saturday week. As we mentioned in our last issue, the address is a splendid specimen of the artist's work, and a most eloquent memento of what is admitted to have been a very successful Oil Exhibition.



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## PRODUCTION OF ENGLISH COMPANIE IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended April 11th was 118,00 poods.

Spies Petroleum Company, Ltd. — The production for week ended April 12th was 299,87 poods, or about 4,837 tons. The total production fo the year from January 14th to April 12th wa 3,676,030 poods, or about 59,291 tons. The tot production for the corresponding period last yea was 3,676,235 poods, or about 59,294 tons. Price c crude oil at Baku is now 40¼ copecs per pood.

Maikop Victory Oil Company, Ltd. -- Th production of crude oil for week ended April 11t was 23,425 poods, or 378 tons.

European Oilfields Corporation, Ltd. — Th production for the week ended April 12th w 113,400 poods, or 1,829 tons.

Baku Russian Petroleum Company, Ltd.—Th production for the week ended April 11th w 122,000 poods.

Black Sea Oil Fields, Ltd.—The producti of this company for the week ended April 11th w 19,890 poods (321 tons).

Maikop New Producers, Ltd.—Production f week ended April 11th was 7,100 poods (115 tons)

British Maikop Oil Company, Ltd.— Producti for week ended April 12th was 11,676 poods, 188 tons.

New Schibaieff Petroleum Company, Ltd. Gross production for week ended April 11t 91,212 poods, or 1,471 tons.

North Caucasian Oil Fields, Ltd.—The to production for week ended April 14th w 438,820 poods, or 7,078 tons. Corresponding period l year, 2,024 tons.

Bibi-Eibat Oil Company, Ltd.—Production the week ended April 12th was 86,067 poods, 1,388 tons.

Maikop Midland.—Production at Krimskaya week ended April 11th was 4,850 poods, or 78 tons.

Maikop Premier Oil Syndicate, Ltd.—The p duction for the week ended April 11th was 19,2 poods (310 tons).

Shagirt (Cheleken) Oil.—Estimated producti of crude oil for week ended April 11th was 1, poods (22 tons).

Levanovskoe Petroleum Company, Ltd— Production of crude oil for week ended April 1 was 2,800 poods, or 45 tons.

Cheleken Oilfields, Ltd.—Production for fortnight ended April 11th was 1,827 tons.

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OILFIELDS SHIPPING AGENTS,
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(Off Cannon Street),
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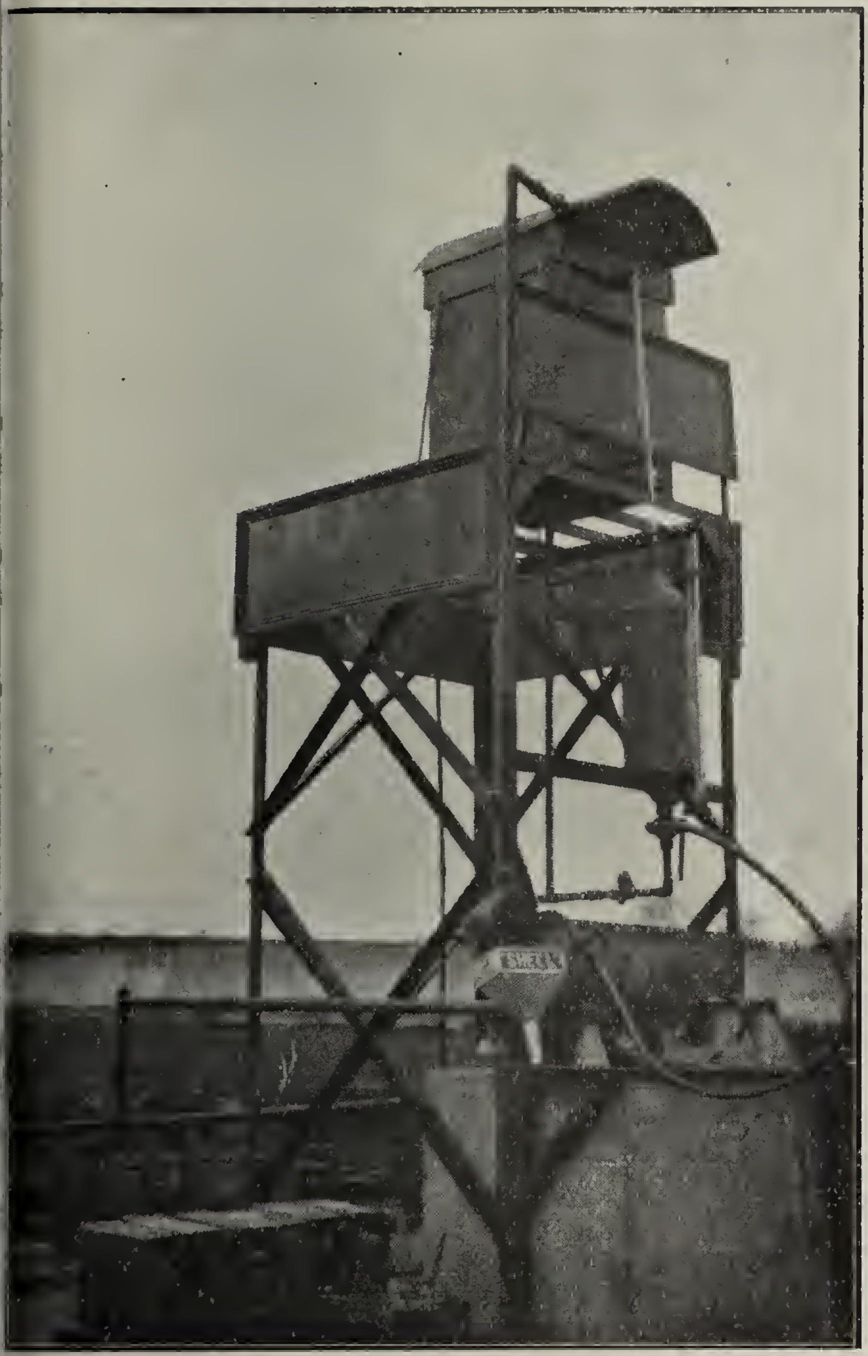
LONDON, E.C.

# MOTOR-SPIRIT DISTRIBUTION AT BROOKLANDS.

Last Monday a Review representative had the pportunity of making a close inspection of the laborate arrangements made at Brooklands for the upplying of motor spirit both for motor racing and viation purposes.

The importance which attaches to the question of he supply and mode of distribution of motor spirit at a rendezvous, such as Brooklands, is obvious to the most casual observer, since both flying and motor racing would be an impossibility if adequate supplies of the necessary spirit were not forthcoming at the required moment. The various companies which are responsible in this country for the importation and distribution of motor spirit have, however, been fully alive to the situation, and as a result most elaborate arrangements are made for the benefit of those desiring either large or small quantities of motor spirit at a moment's notice.



The "Shell" Filling Installation.

In close proximity to the racing track—adjoining the "paddock" where all the racing cars are stored, to be precise—are the storages and filling arrangements of the several spirit companies, prominent among which is the installation of the British Petroleum Company—the concern which is responsible for the distribution of the well-known "Shell" spirit, and which installation is here illustrated. It is typical of the rest, and therefore a reference to it will equally apply to some of the other installations.

The motor spirit is kept in bulk in two underground reservoirs, and from these it is pumped into an overhead tank of several hundred gallons capacity by means of a semi-rotary pump. Then, as required by the racing motorist, the spirit is fed through a flexible metallic hose into the tank of the car in any desired quantity, a marked-off ten-gallon measure enabling the consumer to immediately see the quantity he is receiving into his tank. The principle works admirably, for ten or twenty gallons can be taken aboard a car in a most expeditious manner. As the various competing cars return from the tract they pass these filling installations, and, should circumstances necessitate, a few seconds suffice to fill up the car tank for the forthcoming spins round the track.

For aviation purposes, the system of filling-up from the familiar two-gallon "Shell" tins prevails, for the various aviators have a preference for this, inasmuch as it assures their obtaining an absolutely pure spirit—a matter which, of course, is of the utmost importance when "on the wing."

The second snap-shot here reproduced was taken on Brooklands track on Monday, and shows Mr. John Cates (manager of the Publicity Department of the British Petroleum Co., Ltd.) on the right, and Mr. Frank James, who has recently been appointed the permanent representative for "Shell" spirit at the Weybridge track.

◆

## PRODUCTION OF PETROLEUM ON THE SURAKHANI OILFIELDS DURING JANUARY.

The production of petroleum on the Surakhani oilfields during January totalled 73,127 poods of gas, 37,231 poods of white oil, and 3,771,825 poods of black oil. There were during the month in exploitation 48 wells, and 88 wells in boring and deepening. The number of feet bored during the month amounted to 10,311.

# MISCELLANEA.

## TRIAL TRIP OF THE "CASSIS."

The speed trials of the new oil-tank steamer "Cassis," which the Greenock and Grangemouth Dockyard Company, Greenock, have built to the order of the Anglo-Saxon Petroleum Company, Ltd., London, have been successfully carried out on the Firth of Clyde. The dimensions of the vessel are :—Length, 400 ft. ; breadth, 52 ft. 9 in. ; depth, 29 ft. 3 in. ; carrying 7,600 tons on 23 ft. 6 in. draught. The vessel has been built to the highest class at Lloyd's on the Isherwood system, and is adaptable for carrying various grades of oil in twenty-four oil-tight compartments. There is a complete installation of cargo pumps and oil pipe. The machinery has been supplied by Messrs. John G. Kincaid & Co., Ltd., Greenock, and consists of a set of triple expansion engines, having cylinders 25 in., 42 in., and 68 in. diameter by 45 in. stroke, supplied with steam from two large boilers. The vessel has been fitted with an oil fuel burning installation on the Meyer-Zulver system. Progressive speed trials were carried out on the measured mile at Skelmorlie. The steamer afterwards went on full speed trial, and easily maintained the mean speed of 11½ knots, everything working smoothly to the entire satisfaction of all concerned. The vessel and her engines have been inspected during construction by Mr. Zulver, the marine superintendent of the owners, assisted by Mr. Taphouse.

◆

## LAUNCH OF THE "MINISTRO EZCURRA."

On Saturday last the Greenock and Grangemouth Dockyard Company, Ltd., launched from their Grangemouth yard the oil-tank steamer "Ministro Ezcurra," which they have built to the order of the Argentine Government for service in connection with provision of oil fuel to the Argentine Navy. She has been designed by the builders to fulfil the requirements of this very special service with which they are familiar, having designed and built the royal fleet auxiliary "Burma" for the British Admiralty for this work. As the latter was the first vessel specially designed and built for our Navy for conveyance of oil fuel, so the "Ministro Ezcurra" is the first for the Argentine Navy, and the launch, therefore, is interesting as being that of the second vessel built by the firm for naval oil-carrying service.

Her dimensions are 260 ft. by 40 ft. by 20 ft. 9 in. She is classed under Lloyd's Survey, and is of the single-deck type, with long poop, forecastle, and midship-house accommodation for officers. The quarters for these and for the complement of engineers, artificers, and crew, as well as the equipment of the vessel, are somewhat more elaborate than for the usual mercantile tanker, and more on the lines of a naval vessel. The pumping installation, arrangements for loading and discharging the oil fuel, for keeping it heated during transit, the deck and electrical equipment, etc., are all of a specially complete and efficient character.

Machinery for a good rate of speed, with boilers to burn oil fuel, will be supplied by Messrs. Cooper Greig, of Dundee.

The inspection of the vessel during construction ha been directed from the Argentine Naval Commission London, through a local commission of three officers o the Argentine Navy.

The launching ceremony, which passed off ver successfully, was of a private character.

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## ROUMANIAN PETROLEUM EXPORTS DURING FEBRUARY.

The total exports of Roumanian petroleum product during February amounted to 75,010 tons, as agains 93,750 tons exported during February, 1913, thu showing a decrease of 18,740 tons. The exports of th various products to the various countries are shown i the following table :—

| | Residuals. Tons. | Kerosene. Tons. | Benzine. Tons. |
|---|---|---|---|
| England ... ... | 1 | 13,269 | 661 |
| Austria-Hungary ... | 121 | 783 | 1,036 |
| Belgium ... ... | — | 2,023 | — |
| Bulgaria ... ... | 161 | — | 125 |
| Egypt ... ... | — | 9,520 | — |
| France ... ... | 94 | 3,651 | 3,701 |
| Germany ... ... | 608 | 177 | 9,126 |
| Greece ... ... | 169 | 1,646 | 57 |
| Italy ... ... | 7,170 | 2,822 | 3,465 |
| Turkey ... ... | 103 | 2,878 | 52 |
| Servia ... ... | 404 | — | 24 |
| Switzerland... ... | — | — | 38 |
| Holland ... ... | — | — | 4,433 |
| Russia ... ... | — | — | — |
| Denmark ... ... | 4,704 | — | — |
| Totals ... ... | 13,535 | 36,769 | 22,718 |

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## THE MAIKOP SPIES COMPANY, LTD.

An extraordinary general meeting of the Maikop Spies Company, Ltd., was held on Tuesday, at Cannon Street Hotel, E.C., to confirm the resolutions passed on the 26th ultimo for reducing the capital of the company.

Mr. Charles J. Palmer presided, and, in moving the confirmation of the resolutions, stated that at the previous meeting the chairman explained the reasons for the reorganisation of the company, and therefore it was unnecessary to add anything to what he said on that occasion.

Mr. H. G. Trew seconded the resolutions, which were unanimously confirmed.

The Chairman said that as the company was interested in the Terek Company, being the holders of 50,000 shares, no doubt the shareholders would like to hear how the development work was progressing. The last report, which was dated April 13th, stated that plot No. 10, well No. 1 was now down 1,318 ft. ; plot No. 11, well No. 1 was down 1,482 ft. ; plot No. 11, well No. 2 was down 1,757 ft., and the more recent well on plot No. 12, well No. 1 was down 565 ft. That, in his opinion, was wonderful progress in so short a time. Other companies in the district which started last year were only down a few feet. If they struck oil, as it was possible, at a depth of 2,000 ft., he thought there was a very bright future for the company.

# THE OIL INDUSTRY OF MEXICO. An Historical Sketch.

By Mr. E. DE GOLYER.

The first written record of the occurrence of any member of the petroleum family on the continent of North America of which I am able to learn is in the writings of Friar Sagahun, who wrote much descriptive of Mexico during the latter part of the sixteenth century, in the years immediately following the conquest in 1520. This record antedates by almost a century the first mention of the occurrence of petroleum in the United States; the latter being in the writings of a Franciscan missionary, who describes an oil-bearing spring in the State of New York, in 1629. Friar Sagahun, in describing the various articles for sale in the market-place of Mexico, makes the following mention of chapopote, or pitch:—

"Chapopote is a bitumen which comes from the sea, and is similar to Spanish tar, being easily decomposed. Upon certain fixed days, according to the stage of the moon, it comes to the surface from the bottom of the sea. . . . Those who live near the sea go out and collect it. This material is very odoriferous and is much appreciated by women. When burned, it gives off a great odour. . . . This bitumen, mixed with copal or incense of the country and aromatic resin, is a good incense."

This entire description is not given, since the good father seems to have confused chapopote and chicle, the sap of the zapote tree, which forms the base for most chewing gums. His remarks upon the chewing of wax by women are rather interesting and quite curious because of their antiquity.

The Indian inhabitants of Mexico undoubtedly were aware and made use of the asphalt residue found in the vicinity of oil seepages from the earliest times. The word "chapopote" itself is an Aztec word, being derived from the two terms "Taans," meaning paste or cement, and "Popochile," meaning perfume, and probably refers to two of the uses to which it was put by the aborigines.

*Knowledge of Chapopote.*—A general knowledge of the occurrence of solid or semi-solid bitumen and use of same seems to have belonged to all early people. Strangely enough the use to which the material was put seems to have been more or less similar among all races. Semi-fluid bitumen was used to cement bricks and slabs in the construction of pavements and buildings in the cities of Babylon and Nineveh thousands of years before the beginning of the Christian era, and like use was made by the builders of what now constitutes the ruins of Yucatan and the pyramids in the Valley of Mexico. It is probable that such recognised use of the material is expressed in the origin of the term "chapopote." Crude petroleum from natural exudations was used for medicinal purposes by the Indians of the North-eastern United States, and similar uses in Mexico are mentioned by Sagahun. The Aztec symbol for the goddess of healing resembles somewhat a pan of chapopote. The earliest records of the Chinese and Japanese refer to the use of petroleum for heating and lighting purposes, and its value for such purposes was probably known by the earliest Mexican. Bernal Diaz mentions the use of torches of chapopote-impregnated wood by the inhabitants of Tabasco. It is a notable fact, and probably of interest in this connection, that Indian mounds are often found in proximity to the more prominent seepages in the Huasteca Veracruzana. I have never examined any of these mounds thoroughly, but they seem to be of the refuse-heap type, containing bits of broken pottery, burned clay and stone and obsidian chips. This suggests a possible use of the chapopote for burning pottery and manufacture of early implements, though I admit that proof of such use is rather vague.

*Used in Religious Ceremonies.*—The use of the product of gas and oil springs in the religious ceremonies of the earliest tribes by which they were found is, however, perhaps more general than any of its other known uses. Natural escapes of petroleum or gas being of unfrequent occurrence and not easily explainable, the possession of the property of burning easily, connecting it with fire, which was rather widely worshipped, nothing could be more natural than the appropriation by the priesthood of earliest man to its uses in the mysteries and religious ceremonies of the race. It was so used by the Israelites and Greeks. By means of a gas spring the fire worshippers of Baku maintained a sacred flame for centuries, and it was similarly used by the Egyptians and Persians.

As noted by Sagahun, it was used by the Aztecs in the manufacture of incense for their religious ceremonies, and the only other possible explanation of the proximity of old mounds and chapopote seepages which occurs to me is that the seepages were burned in the religious ceremonies of the early Mexicans.

The French commander of Fort Duquesne describes such use by the Seneca Indians in the territory which is now Pennsylvania.

*Slow Commercial Recognition.*—One of the most difficult facts of the history of the petroleum industry to explain is the extreme slowness with which the human race really began using oil and gas in a commercial way. This is particularly true of the use and development of Mexican petroleum, since the coal deposits of the country have never been worked extensively, and it would seem that the need for fuel would have stimulated earlier activity in the petroleum industry. The first recognition of the commercial value of chapopote or petroleum deposits in Mexico is probably that which occurs in the Memoria de Fomento of 1865, which states that in 1864 permission was granted to a certain Ildefonso Lopez to exploit the deposits of petroliferous substances in the San Jose de las Husias areas in the State of Tamaulipas. Permission was granted to the same person to exploit the same substance at Chapopote, south of Aldama, in the same State. Similar permission was granted to Paredes in 1865 to exploit chapopote at Carrancitos in the Macienda of Bejarano, State of Tamaulipas. These concessions probably refer to the exploitation of exudations of petroleum, but may have included the subsoil, as the dates upon which they were given are some five or six years later than the discovery of the Drake well in Pennsylvania, the first oil well, and some Mexicans were probably aware of the possibility of existence of deposits of more value in the subsoil. In 1868, a certain Dr. Autrey discovered the Cougas oil springs in the region now known as Furbero. He states that he found workings of some antiquity already in existence and that the deposits were known only to the Indians. In the following year the Cia. Explotadora del Golfo Mexicana was formed in the City of Mexico, the Cougas deposits were denounced, refining and drilling machinery imported, and a well drilled to a depth of 125 feet. This is the first drilling operation in Mexico of which there is any record. This operation was unsuccessful and a tunnel was driven into a hill near the largest seepage. A flow of oil equal to about four or five barrels of oil per day is said to have been secured as a result of this latter work, and some 200 cans of petroleum were refined. The company failed, and the operations were abandoned.

*Petroleum Indications Noted.*—In 1872, John C. Spear described petroleum indications at Chapo and San Cristobal, in the Isthmus of Tehuantepec, and in 1873, Señor Prieto described the occurrence of numerous seepages along the Tamesi River in Tamaulipas, and states that a number of these seepages had been denounced by residents of Tampico, but that work was abandoned almost as soon as started. During this same year the asphalt deposits of Porero El Cristo, near the town of Tempoal in the canton of Tantoyuca, were mined to some extent. This was probably one of the numerous attempts to float so-called coal companies to work asphalt veins in the belief that they were deposits of coal. A great deal of fraud was resorted to in the formation of these companies, and I was recently shown an old affidavit attested to by various municipal authorities of Tempoal, stating that the English steamer "Stonewall," of 300 tons displacement, had reached Tempoal from Tampico on September 9th, 1874, having made the trip in 30 hours. It further stated that the "Stonewall" would make regular trips between Tempoal and Tampico and New Orleans. In view of the fact that at the present time it would be somewhat difficult to take a large barge up the Tempoal River to the point mentioned, and that a fast launch would be necessary to make the trip from Tampico to Tempoal in 30 hours, even were navigation possible, the affidavit mentioned is probably untrue.

*Some Published Statements.*—In 1878 and 1879 several accounts of the occurrence of seepages were published, among them being an account by John W. Foster, published in an exposition of the Secretaria of Hacienda. About 1879 or 1880, Mr. Autrey, discoverer of the Cougas Springs, denounced the old workings and property of the Cia. Explotadora del Golfo Mexicana, and set up one of the old stills in the village of Papantla. The product of the seepages was packed on mule-back to that place, a distance of 15 to 20 miles, and some 4,000 gallons of kerosene are said to have been refined by him. There is an old report to the effect that some of this oil was use to light the National Theatre in Mexico. This account if true, is of the first transportation and refining of oil i Mexico.

*When and How Drilling Began.*—Between 1880 an 1883, several wells were drilled in Mexico, one bein drilled in the Valley of Mexico, near Gaudalupe, and small amount of light oil (one or two bottles) was obtained. Two wells were drilled by a Boston company a Chapopotal, about two miles from the now famou Potrero field. The wells were drilled with Canadian rig and are said to have reached a depth of about 400 ft. A large premium, 50,000 pesos, was promised by the company to the superintendent and man in charge of thi work should they be successful. The first well encountered enough oil and gas to flow. It was capped and a affidavit was made by local officials to the effect that i was a flowing well. Not willing to run any further ris of losing his bonus, the superintendent is said to hav buried a line from the first to the second well, and th latter also caused to flow. In 1908, the successful wel was still gassing and flowing a small amount of oil, reported to be about four barrels of oil per day.

Governor Sarlat of the State of Tabasco drilled shallow well on his property, Hacienda San Fernando district of Macuspana, in the State of Tabasco. A small amount of oil was secured, but operations wer abandoned. In 1884 a company was formed to exploi coal and asphalt in the Cañon of Tocomon, in th Aquismon district of the State of San Luis Potosi, and i 1889 a shallow well was drilled near the seepage of Sa Jose de Las Rusias, in the State of Tamaulipas, b Manuel Flores.

*An American on the Scene.*—In 1883, the present minin law vesting the ownership of petroleum with proprietor of the surface of the land was passed, and in 1892, El Cougas, Furbero region, and 2,500 hectares of land were leased to an American oilman, this being the first lease on record in the Republic of Mexico. In 1895, Mr. Rubi commenced the construction of a railroad from Tecolutla to the asphalt deposits of Sabaneta, in the Canton of Papantla, but this operation was soon abandoned. In 1898, a bulletin was published by the Institute Geologico Nacional, listing the mineral wealth of the nation, and describing various petroliferous districts of Mexico. A well was drilled in the Hacienda Chapopote, Canton of Tuxpam, within a short distance of the Alamo field, during the same year. Companies were formed to exploit the Papantla district and a district near the boundary of the States of Vera Cruz and San Luis Potosi.

(*To be concluded.*)

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## ROUMANIAN PETROLEUM PRODUCTION DURING FEBRUARY.

The total production of petroleum on the Roumanian oilfields during February amounted to 132,095 tons, as against 139,523 tons obtained during the preceding month, thus showing a decrease of 7,425 tons. The production in the various districts was as follows:—

| | Tons. |
|---|---|
| Prahova | 112,825 |
| Dambovitza | 3,502 |
| Buzau | 12,280 |
| Bacau | 3,488 |
| Total | 132,095 |

# Damage by Water in the California Oilfields.

### By Messrs. F. McN. HAMILTON and R. P. McLAUGHLIN.

*Another Government Bulletin.*

In continuing the publication of information on the damage of water in oilfields it may be well to repeat the introductory remarks accompanying "Preliminary Report No. 1" on the Coalinga field.

The subject of conservation of natural resources is of vital importance. Flooding of oil sands by underground water is comparable to a loss of forests by a constantly burning fire, but it is not so well realised except by persons directly employed in oil production.

In order that the attention of the public, particularly non-resident owners of oil properties, may be directed to the menace of water entering and ruining the producing oil sands of the California fields, it is proposed to state briefly and promptly the conditions existing in the various fields. Such statements will serve a more useful purpose if issued as the data are collected rather than being published at the end of a year, along with other information which is aimed to cover all branches of the industry.

The fact that a single field will be dealt with in each of these short reports must not be construed to mean that such a field is the only one in which serious conditions prevail. On the contrary, the menacing conditions exist in many of our fields, and the reason that separate reports will be issued is that valuable time may be saved to the industry.

All these investigations made by the State Mining Bureau will be with the sole purpose of constructively aiding the industry. Operators throughout the State are urged to assist by furnishing information when it is requested. It is my firm belief that the California oil-men possess the ability to cope with the physical conditions, and the aim of the State Mining Bureau will be simply that of gathering the information gained by the experience of individuals, and placing it at the disposal of all.

Suggestions leading to improvement of this service will be welcome.

The Midway and Sunset fields were visited in February, 1914, and the information obtained during that visit, together with that accumulated during the past five years, constitute the basis of this report. As in previous work of this kind, information was readily furnished by such operators as are informed on the subject.

The two fields are not naturally divided; common usage refers to the territory south of township 32 south as the Sunset field, while that to the north is called the Midway field. As a whole the Sunset-Midway field consists of a strip of territory extending some seventeen miles north-west and south-east along the western side of the San Joaquin Valley and having a width of from wo to five miles. The total area of proved oil land s about fifty-nine square miles.

The total thickness of oil sands varies from twenty-ive to two hundred feet. They exist in the form of rather flat non-continuous bodies, or lenses, most of which lie in two well recognised zones, which are not parallel. Water is contained in similar sands both above and below those carrying oil. There are a number of folds in the underground formations, some of which are scarcely indicated on the surface. Underground conditions are not so simple as in the Coalinga field nor so easily described. Some 1,600 wells have been completed, ranging in depth from 800 ft. to over 4,000 ft. The cost of wells has been from $4,000 to $100,000 each. About one hundred and seventy companies own or operate property in the territory.

As was stated in the report on the Coalinga field, water will enter the oil sands and entirely ruin a well and its neighbours unless the several strings of casing are placed securely, and in their proper position. It cannot be too forcibly emphasised that the work of protecting oil sands from water consists of two distinct branches as follows :—

The casing must be landed securely, and frequently cemented by a thoroughly skilled and experienced driller. It also must be landed in the proper place, which, in most cases, can only be determined by a thoroughly informed and experienced geologist or engineer. Attempting to systematically control underground water without the services of the geologist-engineer is as absurd as sending a vessel to sea without a navigator. The two branches of work are being carried on in these fields. Description of methods and conditions are as follows :—

The work of protecting the oil sands is carried on by two separate and distinct concerns, namely, the county government, and a semi-public association of oil operators.

For several years the position of county oil-well commissioner has been occupied by a driller who has had a great deal of experience and bears a reputation of being a thorough workman. The commissioner willingly assisted the State Mining Bureau in its inquiry. During the past two years he has participated in the work of shutting off water at 156 wells. Existing legal methods controlling this position do not provide for a complete file of records, and further information as to the exact nature of the work is not at hand.

The Kern County Oil Protective Association was formed in March, 1912, and consists of some forty companies who make monthly payments for its support. Over 75 per cent. of total receipts are from seven large companies who produce about 60 per cent. of the total oil, own about 64 per cent. of the proved land and 36 per cent. of the completed wells. A business office is maintained at Bakersfield, but all the detail and statistical work is done at the Taft office. There is a geologist and one assistant at the Taft office, which is also used as headquarters for the County Oil Well Commissioner. According to its published report to subscribers, dated September 15th, 1913, the association aims to give advice to operators, aiding them in shutting off water, "and prepare and endeavour to have passed an adequate law to protect the fields of the State from the infiltration of water." The report further explains as follows :—

"A daily record is kept by the field force of the properties visited by them, and a detailed report is furnished the Executive Committee each month, going fully into the work of the previous month.

"The report for the month of August gives an account of the work of thirty-three companies and the progress they are making in shutting off water in their wells. An inestimable amount of assistance was rendered these companies, most of whom are not in a position to hire experts for this work, and gladly avail themselves of the valuable and reliable service the Commission is able to give them.

"These properties were visited by the Commissioner or his assistants from one to ten times during the month. A copy of the monthly report is on file in this and the Taft offices, and any member of the Executive Committee will be pleased to go over the report with any subscriber.

"We earnestly urge every company to instruct their field superintendent or other representative to visit the office in Taft and advise with the Commissioner or his deputies in regard to water conditions in either new or old wells. Logs and cross-sections will be gladly furnished without cost to any company of their own property or of an adjoining property when necessary and with the consent of the owner thereof.

"It is not possible to shut off the water in all the wells now drilled, but with the co-operation of all the producers on the west side, it is possible to drill the new wells and finish them with the water absolutely shut off.

"The best results can be obtained, in treating any water trouble, only when all possible information can be had from neighbouring wells. Will you, therefore, kindly furnish the association with copies of the logs of your wells if you have not already done so? Any information that you regard as confidential will be strictly treated as such, and will be used only in reaching conclusions by the Water Commissioner and assistants."

The cost of the Taft office, including rent, automobile operation, and salaries of the geologist and assistant, is approximately $6,000 per year.

The information obtained from the Taft office of the association was more systematic and complete than that obtained by other inquiries in the fields. Records, however, showing the amount of water coming from various wells and properties were not on file to the extent found in the office of the Oil Well Commissioner at Coalinga, and a direct statistical comparison of water conditions in the two districts is therefore impossible. Detailed inquiry leads to the conclusion that the older portions of the Sunset-Midway field are in almost as serious a condition as is the Coalinga field. It is possible to enumerate, even with incomplete data, about 100 wells which are making over 10 per cent. water. This is a considerably lower proportion than in Coalinga; but, on the other hand, during the past year and a half about twenty wells have been abandoned in the Midway-Sunset field, largely on account of water. These abandoned wells represent a loss of probably a half-million dollars.

The geologist of the association enumerated ten properties upon which repair work had been done on wells making water, twenty-eight which are in course of remedying, and twelve which are still doing damage that should be corrected.

An illustration of the result of drilling a well without making use of all the information obtainable occurred in the field while information for this report was being collected. A superintendent, who had previously finished several wells satisfactorily with advice from the association geologist, proceeded without advice and drilled another well too far through the oil sand and encountered a strong flow of water. This "bottom water" was actually encountered within 2 ft. of where it had been expected by the geologist's study of logs of surrounding wells. Advice would have been to stop drilling some 15 ft. above the point to which it was carried. A contractor was engaged to cement the bottom of the hole after the flow of water had been checked by a "bridge." Providing the first cementing job is successful, the needless expense on this well will probably amount to about $500. The chief aim of the geologist of the association is to meet exactly such circumstances in time to prevent trouble, rather than aid in patching up improperly drilled wells, which is, at best, apt to be troublesome and unsatisfactory. Large companies frequently have a competent cementing crew, while the smaller operators usually call in one of the several successful contractors. Competent drillers and cement men are not scarce.

The greatest importance of systematic control of underground water is well illustrated in one particular portion of the Midway-Sunset field, where several operators are being injured and the oil resources of the State ruthlessly wasted. There are two known oil sands in this particular locality, both productive. There are water-bearing sands above the upper oil sand and also between the two oil sands. When a well is drilled into the lower sand two extra strings of casing (about 2,000 ft. of 8-in. and 2,500 ft. of 6-in.) should be inserted to keep the water out of the upper sand. The extra casing and labour may amount to $10,000 per well. Some operators have neglected or refused to drill their wells in this manner, and have seriously damaged others whose wells are dependent upon the upper sand because they are of too small diameter to allow deeper drilling.

An approximate idea of the ultimate loss that will ensue, unless the top sand is protected, may be gained from the following figures :—A single well, at present producing, has during the past three and a half years produced almost 300,000 barrels of oil. Other wells, though not so large, should produce for a much longer time than three and a half years, and the figure is not an unreasonable one in assuming their total production. The upper sand extends over some 400 acres, and at five acres per well should supply eighty wells, or a total of not less than 24,000,000 barrels, or $12,000,000.

Conclusions drawn from the observations in the Midway-Sunset and Coalinga oilfields are as follows :—

(1) Technical information is absolutely necessary to efficiently develop a large oilfield.

(2) The present rate of development and the size of these two fields (Midway-Sunset and Coalinga) requires the constant attention of a man in each field.

(3) The technical information will probably be more generally accepted and used by operators if the man giving it out is a public official empowered to obtain logs or other data of all wells.

(4) Legislation is doubtless necessary to prevent some operators from damaging neighbouring property, and to repair damaging wells owned by defunct or financially embarrassed concerns.

(5) Power to order repairs or abandonment of wells should not be lodged in the hands of a single individual.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

### ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 12/9-13/9 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 22/6-23/0 |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | ⅝-¾ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 6/0-6/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 4/9-5,9 |
| European Oilfields ... ... | 319.181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 23/9-24/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 47/3-47/9 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | ⅞-1 |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 2/0-3/0 |
| Roumanian Consolidated Oilfields ... ... ... | 1.158.840 | £1 | 27/3-28/3 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/4½-4/10½ |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{3}{16}$-$1\frac{5}{16}$ |
| „ „ Ord... | 690,000 | fully pd. | 13/6-14/6 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5¼-$5\frac{5}{16}$ |
| Pref. | 2,000,000 | £10 | 10½-10¾ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 24/9-25/3 |

### RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. Lowest Roubles. | Highest Roubles. |
|---|---|---|---|
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 700 | 702 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3.200 | 3,400 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 255 | 257 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,350 | 19,450 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,002 | 1,004 |
| Russian Naphtha Society ... ... | 100 | 219 | 221 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 215 | 217 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

### SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 30/3 |
| „ 6% Cum. Pref. | 100,000 | £10 | 11¼ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 90/6 |
| „ Pref. ... ... ... | 250,000 | £1 | 29/9 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| „ 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 40/0 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 34/0 |
| „ Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 98/9 |
| „ 6% Cum. Pref. ... | 100,000 | £10 | 26/9 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 14/3 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 63/6 |
| „ "B" Deb. ... | 160,000 | £100 | £152 |

### DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179½ |
| „ „ „ „ Pref. .... | „ | 181 |
| Royal Dutch Petroleum Co. ... ... ... | „ | 601½ |
| Moeara Enim Petroleum Maatschappij ... | „ | 234 |
| Perlak Petroleum Maatschappij ... ... | „ | 36⅞ |
| Sumatra Palembang Petroleum Maatschappij | „ | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | „ | 36¼ |
| Tarakan Petroleum Maatschappij ... ... | „ | 123 |

## MAIKOP PETROLEUM PRODUCTION DURING JANUARY.

The production of crude oil on the Maikop oilfields during January amounted to 384,416 poods. The following table shows the quantity of oil obtained, as well as the number of wells on each plot:—

| No. | | Quantity of oil obtained. Poods. | No. of wells on each plot. |
|---|---|---|---|
| 3 | Black Sea Company ... ... | 100,103 | ... 44 |
| 21 | Maikop Premier Oil Syndicate | 74,832 | ... 3 |
| 170 | Anglo-Maikop Corporation ... | 67,140 | ... 4 |
| 30 | British Maikop Company ... | 63,941 | ... 5 |
| 202 | Maikop Victory ... ... ... | 29,658 | ... 24 |
| 16 | Andreas ... ... ... ... | 24,289 | ... 50 |
| 13 | „ ... ... ... ... | 8,685 | ... 1 |
| 42A | Maikop Enema Society ... ... | 3,389 | ... 4 |
| 76 | Colchida Company ... ... | 3,124 | ... 1 |
| 34 | Black Sea Company ... ... | 2,949 | ... 4 |
| 94 | Verbitcheff ... ... ... | 1,607 | ... 1 |
| 15 | Andreas ... ... ... .. | 1,027 | ... 1 |
| 1 | Black Sea Company ... ... | 741 | ... 2 |
| 130 | London Maikop Corporation ... | 1,381 | ... 2 |
| 193 | Andreas ... ... ... ... | 711 | ... 2 |
| 181 | Maikop Valley Company ... | 1,082 | ... 1 |
| 29 | Black Sea Company ... ... | 254 | ... 1 |
| 45 | Andreas ... ... ... ... | 962 | ... 1 |
| 155 | Pekhovski ... ... ... | 216 | ... 2 |
| 446 | Andreas ... ... ... ... | 325 | ... 1 |

The deliveries during the month amounted to 363,185 poods and the reserve in store to 110,243 poods.

◆

## A FOUNTAIN IN THE SURAKHANY FIELD.

A fountain was struck in the Surakhany field of the Baku district on March 27th on the property of Luke & Von Gaber. It came in while operations were proceeding with the Johnston Rotary drill, and was got under control with some difficulty.

## EXPORTS OF PETROLEUM PRODUCTS FROM BAKU DURING DECEMBER.

The total quantity of petroleum products exported from Baku during December amounted to 9,956,714 poods. The following table shows the quantities of various products exported by rail, on the Caspian Sea, and by road:—

| | Rail. Poods. | Caspian Sea. Poods. | Road. Poods. |
|---|---|---|---|
| Kerosene ... ... | 2,628,186 | 1,071,124 | 161,546 |
| Lubricating oil ... | 1,547,063 | 1,654 | 25,044 |
| Solar oil, light ... | 45,329 | — | 3 |
| „ „ heavy ... | 336,733 | — | 1,445 |
| Residuals ... ... | 1,052,910 | 1,330,765 | 123,641 |
| Crude oil ... ... | 900,936 | 322,360 | 27,861 |
| Benzine ... .. | 371,532 | 1,671 | 5,911 |
| Totals ... ... | 6,882,689 | 2,727,574 | 345,451 |

◆

## OUTPUT OF ROUMANIAN REFINERIES DURING JANUARY.

The quantity of crude oil treated in Roumanian refineries during January amounted to 138,612 tons, from which 136,436 tons of products were obtained. The following table shows the quantities of products obtained, as well as those delivered for inner consumption, and those left in stock at the end of the month:—

| | Obtained in Jan. 1914. Tons. | Delivered for Inner Consumption. Tons. | In Stock on Jan. 31st. Tons. |
|---|---|---|---|
| Benzine ... ... ... | 32,158 | 2,281 | 73,549 |
| Kerosene ... ... ... | 30,929 | 5,285 | 143,790 |
| Lubricating oil ... ... | 4,218 | 3,273 | 16,271 |
| Residuals ... ... ... | 69,131 | 47,644 | 61,411 |
| Paraffin ... ... ... | — | 153 | 89 |
| Totals .. .. ... | 136,436 | 58,636 | 295,110 |

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PETROLEUM REVIEW,
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American Office: 111, Broadway, New York.

Saturday, April 18th, 1914.

## RUSSIA AND THE COMING OIL BOOM.

Now that activity in regard to oil operations is becoming more general, it is no surprise to those who have carefully studied the trend of events to find that the Russian Empire is becoming prominently associated with the developments that are projected, and that, should the present favourable signs materialise, Russia will stand as one of the chief attractions for the new speculator in oil.

To-day we know that numerous propositions in oil are awaiting a slightly more favourable moment to appear before the public, and of this number we are aware that several are for the acquisition and development of lands in the Empire of the Tsar. Without a doubt, Russia is destined to figure very largely among the new companies which will during the next few months make their public bow, and one can only feel that the result—providing the several enterprises are properly and carefully directed—will be of great advantage to Russia itself and to the respective companies who are willing to invest large sums of capital in order to commercially exploit Russia's almost unlimited oil wealth.

But there are two main factors governing the situation, and both of these point favourably to the advantage of combinations of capital seeking a return from invested moneys in Russia's petroliferous regions. In the first place, Russia has great need for more oil. Throughout the length and breadth of the great Empire the consumption of petroleum products has steadily increased during the past two or three decades, until at the present time a position has been reached which is quite abnormal, for, apart from being unable to foster its hitherto substantial oil export trade, Russia finds herself faced with the necessity of having to import petroleum products from abroad to satisfy her own inland requirements. It therefore follows that with such a state of things prevailing, the prices for all petroleum products are of an inflated and highly profitable nature, and are bound to continue at such a level for a long time to come. The question of the healthy home demand for oil is, of course, one which must appeal to the exploiter, for in its absence the greatest output of crude oil does not necessarily spell profit.

In the case of Russia, however, an ever-open market is at hand, and consequently there is every inducement for the operating companies to produce as large an amount of crude oil as possible, since the demand always exists for its quick consumption.

But the second main factor which should always stimulate interest in the exploitation of Russia's oil territories is the fact of the wide-spread nature of the oil deposits and of their prolific character. For countless years Baku stood as the venue for oil production, and so prolific were the wells which were brought in that there was little or no inclination on the part of the operators to extend the limits of production. Even to-day, now that it is well proved that Baku is declining, there is little inducement to search in other parts of the Apsheron Peninsula, for the Government is taking the greatest possible care that its admittedly rich oil lands shall not be exploited without the operation of that well-known "pound of flesh" policy of the Government being enforced.

Thanks, however, to a bounteous Nature, there are numerous regions outside Baku which offer to the oil exploiter a wide field for profitable research. There is the Grosny field, a region which was for years a mystery, and whose limits in regard to oil production are as yet unknown. Then we have the Urals, where during the past few years the influx of foreign finance has proved the existence of such great petroleum deposits. This field should in the future have great attraction to English investors. Those who have studied the region have come to the conclusion that in the wealth of its ultimate oil production it will excel Baku; but, be this so or not, the fact remains that the advent of the Shell Company should be sufficient to the thinking person to suggest that all is well, and that the development of the oil industry in the Urals will be one of the most glowing pages of Russian oil history.

Then we have Maikop—that land wherein English money poured for a time, then unceremoniously stopped, and without any apparent reason. But Maikop is justifying itself, and the persistent rumours which are now heard as to Messrs. Nobel having taken an interest in the field—rumours which, we have reason to say, are truthful—eloquently tell of the favourable feeling which Russian oil men have toward this new region.

There, too, are other parts of the Kuban province of which we are bound to shortly hear most favourable opinions. We have the Krimskaia district, for instance, where the oil industry has already had a most solid foundation laid for its future. The Kertch Peninsula, too, must attract attention, as also must Tcheleken, Ferghana, Uchta, and a host of other districts now only comparatively little known.

Russia is of a certainty on the very threshold of most significant petroleum developments, and if these are conducted in that manner which modern science and knowledge suggest, then the Russian Empire will again become one of the greatest centres of oil production the world has ever known.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO APRIL 13th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. | Since Apl. 4. | From Jan. 1. |
| **Belgium** .. | — | — | 9,790 | 178.290 | — | — | — | — | — | 32.220 | — | — | — | 1,350 | 9,790 | 211,86 |
| **Canada** .. | — | — | — | 4,400 | 10,450 | 36,630 | — | — | — | — | — | — | — | — | 10,450 | 41,03 |
| **Dutch Indies** | — | — | — | — | — | — | — | — | 1,344,000 | 15,936,070 | — | 83,400 | — | — | 1,344,000 | 16,019 47 |
| **Germany** .. | — | 25,050 | 20,500 | 692 940 | — | — | — | — | — | — | — | — | — | — | 20,500 | 717 99 |
| **Holland** .. | — | — | — | 2,680 | — | — | — | 55,000 | 458,000 | 2,869,180 | — | — | — | 590 | 458,000 | 2,927,45 |
| **Mexico** .. | — | 2,242,970 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,332,310 | — | — | — | 5,341,25 |
| **Roumania** .. | — | 5,442.910 | — | — | — | 875,000 | — | — | — | 1,184,880 | — | 1,207.910 | — | — | — | 8,710 70 |
| **Russia** . | — | 1,495,760 | 4,890 | 1,875,800 | — | — | — | — | — | 5,127,880 | — | — | — | — | 4,890 | 8.499.44 |
| **U.S.A.** .. | 2,050 | 28,583,560 | 429,600 | 13,629,590 | 1,050 | 57,990 | — | 21,763,340 | — | 2,600.410 | 622,360 | 2,484,890 | 36,720 | 196,930 | 1,091,780 | 69.316,71 |
| **Other Countries** | — | — | 4,600 | 124,790 | — | — | — | — | 210 | 210 | — | 4,150 | — | — | 4.810 | 129.15 |
| | 2,050 | 37,790,250 | 469,380 | 16,520,290 | 11,500 | 969,620 | — | 21,818.340 | 1,802,210 | 28,505,020 | 622,360 | 6,112,660 | 36,720 | 198,870 | 2,944 220 | 111.915,05 |

# AMERICAN AND RUSSIAN NOTES.

## AMERICAN.

**Fuel Oil from New York.**—During the present year there have been shipped from New York to London 4,014,320 gallons of liquid fuel, and to Sheerness 4,320,000 gallons, but neither of these items appear in the regular import lists in the Review, inasmuch as the consignments were for Admiralty purposes.

**Bradford's Deep Well Abandoned.**—The deep test of the Bradford Deep Well Company, located several miles east of Bradford, has been reluctantly abandoned at a depth of 5,830 ft., the effort to find the rich Medina sand at this spot having failed. The well is said to have cost $20,000, and has been in drilling nineteen months.

**Californian Stocks and Storage.**—It is anticipated that by the end of the present month there will be over 50,000,000 barrels of oil in storage in the Californian fields. All the large companies are storing oil, and at the present time new steel tankage to a capacity of over 8,000,000 barrels is under construction in the various fields.

**Mexican Oil Prices.**—The current quotations for Mexican crude oil on the fields is 40 cents per barrel. There are many, however, who anticipate that in view of the enormous increase in the production, combined with the very real difficulties which are still in the way of adequate transport, a reduction may take place at any moment.

**A Light Oil in the Santa Paula Field.**—It is reported that after three and a-half years' work the Santa Clara Oil and Development Company, which has holdings in the Santa Paula district of California, has brought in a well which is producing some of the highest-grade oil yet found in the Californian fields. The well was brought in at a depth of 3,200 ft.

**A New Mexican Company.**—The latest company to enter the Mexican fields is the Explotadora de Petroleo de Tampico. This company has approximately 52 hectares of land on the river between Topila and Panuco, 90 hectares in the Chijoles district near the National Oil Company's large well, and 1,000 hectares south of Topila at a place called La Punta. Drilling is to be commenced as soon as the various supplies are on the spot.

**Californian Production during February.**—The total output of crude oil in the Californian fields during February amounted to 7,943,000 barrels, which is a decline from the figures of output for the preceding month. The decline was mainly caused by the drop in the production of the Midway and Maricopa districts. The number of producing wells during the month was 5,787, of which 1,282 were in the Sunset-Midway fields, where the month's output was 3,725,000 barrels.

**The Producers' Transportation Company.**—This well-known company in the Californian fields has issued its yearly report, from which it is seen that during the past year the company's net earnings have amounted to approximately $1,300,000. The total receipts of oil for the twelve months from all the producing fields served by the company's pipelines amounted to over 13,800,000 barrels, the bulk of which was delivered to tank steamers at Port San Luis and to refineries.

**Shooting a Pipeline.**—The idea of shooting a pipeline sounds strange, but it was carried out by some malicious person a few weeks ago upon an exposed part of the Oklahoma Pipeline Company's line between the Kiamichi Mountains and the Arkansas State line. Close by where a bullet had pierced the line was the advertisement, "The gun that shoots through steel." Several thousand barrels of oil were lost before the leak was discovered. A search is now being made for the gentleman with the rifle.

**New Wells for the Mexican Eagle Oil Company.**—In one single week last month the Mexican Eagle Oil Company completed three first-class producing wells in its territory in the southern fields of Mexico. The first well completed was the company's No. 10 Alazan, which has an output officially placed at 1,000 barrels daily. The No. 20 Tanhuijo was then brought in, marking either an extension of the present producing limits of the region or opening up another new field, and the next day the No. 4 Los Naranjos came in with a daily production in the region of 10,000 barrels. The last-named well has now been closed down.

◆

## RUSSIAN.

**Petroleum in the Signakh District.**—The district engineer of the first Caucasian mining district states that in February the boring of two wells was started in the Eldar locality in the Signakh district.

**A New Grosny Enterprise.** — Under the name of the "Russian Grosny Standard," a large new petroleum enterprise has been formed, which has taken over the assets of the Russian Standard Company and of Mr. J. V. Wishaw.

**Petroleum Companies in Russia.**—The Ministry of Trade and Industry has compiled a list of firms engaged in petroleum production in Russia, according to which the number of such firms amounts to 155, with a capital of 465,000,000 roubles.

**Siezd of the Ural Mining Industrials.**—A siezd of the Ural Mining Industrials has recently taken place at Ekaterinoburg. Among the questions discussed was a programme to create mining schools for training engineers and foremen for the mining industry.

**State Revenues from Petroleum during 1914.** — The Budget for 1914 estimates the State revenues from the petroleum industry at 33,775,324 roubles, including 17,500,000 roubles from exploitation of State petroliferous lands, 2,230,159 roubles from the per pood tax, and 13,945,165 roubles from leases.

**Third Series of Petroliferous Plots on the Apsheron Peninsula.**—On April 28th there will be auction sales at the Administration of the Mining Department at St. Petersburg of the petroliferous plots of the third series on the Apsheron Peninsula. These plots were not taken during the preceding auctions. The plots will be leased for exploration purposes only.

**Acquisition of Andreas Plots by Nobel Bros.** — The *Maikop Gazette* communicates that there are persistent rumours in Maikop that Nobel Bros. intend to acquire all the petroliferous plots of Andreas situated in the Maikop district. Until now the rumour has been confirmed as regards the refinery at Schirvanski. If this rumour proves to be true, the future of the Maikop district will be in the hands of Messrs. Nobel Bros.

**Uchta Petroliferous District.**—The Mining Department, which undertook exploration work in order to investigate the Uchta petroliferous district, has discovered two petroliferous strata in clay slates and in quartz sand. The average productivity of the Uchta wells is estimated at 35–50 poods of oil a day, and the depth from 550–700 ft. At present the Russian Nafta Society is working, which is carrying on some boring works on a plot on the River Tchuti. On the other five plots situated on the same river and on the River Iareni, preliminary work is being executed. All the work is greatly delayed owing to the difficulties in transport of necessary machinery, so that at present it is hardly possible to expect a development of the petroleum production in this district.

## PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING MARCH.

### THE SHIPMENTS INTO VARIOUS PORTS.

The various shipments of petroleum products into the U.K. ports during March are given in the following table. The total imports for the month were 34,833,910 gallons, or 5,824,690 gallons more than in February.

| Port. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 3,880 | — | — | — | — | — |
| Barrow ... ... ... | — | — | — | — | 3,847,770 | — | — |
| Belfast ... ... ... | — | 1,750 | — | 8,760 | — | — | — |
| Boston ... ... ... | — | 2,510 | — | — | — | — | — |
| Bristol ... ... ... | 1,887,280 | 397,110 | — | 1,035,550 | 1,068,900 | — | 180 |
| Cardiff ... ... ... | — | 2,370 | — | — | — | — | — |
| Cork ... ... ... | — | 690 | — | — | — | — | — |
| Dublin ... ... ... | — | 60 | — | — | — | — | — |
| Dundee ... ... ... | — | 120 | — | — | — | — | — |
| Glasgow ... ... ... | — | 239,560 | — | — | — | 83,400 | 5,200 |
| Gloucester ... ... ... | — | 2,640 | — | — | — | — | — |
| Goole ... ... ... | — | 160 | — | — | — | — | — |
| Grangemouth ... ... | — | 2,710 | — | — | — | — | — |
| Grimsby ... ... ... | — | 3,240 | — | — | — | — | — |
| Harwich ... ... ... | — | 6,090 | — | — | — | — | — |
| Hull ... ... ... | 941,000 | 163,350 | — | — | 25,000 | — | — |
| Leith ... ... ... | — | 44,020 | — | — | — | — | — |
| Limerick ... ... ... | — | 480 | — | — | — | — | — |
| Liverpool ... ... ... | 14,620 | 1,487,530 | 24,360 | 786,590 | 50,000 | — | 31,840 |
| London ... ... ... | 4,681,810 | 2,116,380 | 7,150 | 2,741,110 | 6,881,310 | 5,610 | — |
| Manchester ... ... | 2,909,750 | 1,918,090 | — | 1,199,720 | — | 158,100 | 10,260 |
| Middlesbrough ... ... | — | 2,520 | — | — | — | — | — |
| Newcastle ... ... ... | — | 21,470 | — | — | — | — | — |
| Newport ... ... ... | — | 800 | — | — | — | — | — |
| Plymouth ... ... ... | — | — | — | — | — | — | 410 |
| Southampton ... ... | — | 1,240 | — | — | — | — | — |
| Swansea ... ... ... | — | 9,660 | — | — | — | — | — |
| Totals ... ... | 10,434,260 | 6,428,430 | 31,510 | 5,771,730 | 11,872,980 | 247,110 | 47,890 |

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# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Oilfields of Mexico.** — Production last week 2,750 barrels.

**Tulsa Oil Company, Ltd.** — Week's production, 1,536 barrels (212 tons).

**Anglo-Roumanian Petroleum Company, Ltd.**—Production week ended 11th instant, 111 tons.

**Traian Roumanian Petroleum Company, Ltd.**—Production (week ended 11th instant), 435 tons.

**Maikop Pipeline and Transport Company, Ltd.**—Received for pumping (week ended 12th instant), 68,942 poods (1,112 tons).

**British Burmah Petroleum Company, Ltd.**—Total production of crude oil by this company and the Rangoon Oil Company amounted to 66,021 barrels for March.

**International Russian Oilfields, Ltd.** — Drilling report for the four weeks ended April 11th :—Plot No. 77 —Depth reached 2,681 ft., increase 160 ft. : formation shale ; a little gas has been encountered. Plot No. 107—The rotary drill has reached a depth of 1,576 ft., increase 338 ft ; inserting 10-inch casing.

**Santa Maria Oilfields of California, Ltd.**—Cable received from local office yesterday reports :—" A good well has been struck on the Shaw ranch, light gravity oil 18 degrees Baume ; making 2,000,000 feet gas and throwing oil over top of rig ; casing not yet perforated. Prospects quality and quantity of oil excellent."

**Maikop Premier Oil Syndicate, Ltd.**—Progress report by telegram, dated Ekaterinodar, 13th instant:— " Production of crude oil for week ended 11th instant, 19,256 poods (about 310 tons) ; (New) well No. 6—Struck oil, 928 ft. ; cleaning sand plug. (New) well No. 7—835 ft. (increase 12 ft.) ; water shut off secure."

**Terek General Oil Company, Ltd.** — Telegram from Grosny office, dated April 13th : " Depths : Plot No. 10, well No. 1, 1,318 ft. ; plot No. 11, well No. 1, 1,482 ft. ; plot No. 11, well No. 2, 1,757 ft. ; plot No. 12, well No. 1, 565 ft. : Russo-Asiatic, plot No. 5, well No. 1, producing past three days 10,000 to 12,000 poods daily. Level playing from 5 to 20 turns from top."

**Anglo-Egyptian Oilfields, Ltd.**— The following telegram has been received from Gemsah :—" Production for the week ended the 12th instant from Gemsah 3,313 tons, from Hurgada 242 tons. Well No. 13 now under control ; unable to restrict flow to less than 2,500 tons daily ; could only save 1,288 tons last 24 hours owing to south wind blowing gas on to boiler, necessitating whole field being shut down about half-day."

**Tampico - Panuco and Chijoles.** — The general manager cables under date of April 6th (cable delayed in transit) from Tampico as follows :—" Tamboyoche well No. 1 cleaned out ; now engaged testing ; pumping crude oil of excellent quality, although amount small at present. Well No. 2, depth 1,600 ft. ; 8-in. casing 1,200 ft. Arena well No. 1. depth 2,490 ft. ; oil increasing ; operations were temporarily suspended for the purpose of testing ; have decided to drill deeper. Well No. 2, assembling rig. Chijoles—Wells Nos. 1-4, no change. Well No. 5, depth 1,850 ft. ; have begun drilling deeper with Standard rig. Well No. 6, depth 1,350 ft. Well No. 7, depth 1,600 ft. Production during last week, 3,250 barrels. Good progress is being made with railway earthworks."

**Kern River Oilfields of California, Ltd.**— The management committee of the St. Helen's Petroleum Company, Ltd., report by cable as follows :—" Fullerton, Anaheim, No. 1—Having sanded up last week, drilling deeper in second oil sand to increase production. Fullerton, Anaheim No. 2—Depth 3,250 ft., increase 50 ft. ; oil sand ; in view of 160 ft. good oil sand drilled through, expectation good well being brought to production in course of few days. Fullerton, Anaheim No. 3—Flowing 504 barrels per day. Fullerton, Anderson No. 1—Depth 1,960 ft., increase 340 ft. ; constitutes drilling record district. Midway, King Lease well No. 5—Depth 2,610 ft., increase 135 ft.; water is shut off. Midway, King Lease well No. 6—Depth 1,810 ft., increase 250 ft. Midway, McLeod Lease, well No. 1—Flowing 930 barrels per day. Midway, King Lease—Production 734 barrels per day."

**Hungarian National Petroleum Company, Ltd.**— Progress report three months ended March 31st :— Izaszacsal division—Well No. 4—In December the 6-inch casing was damaged at about 804 metres, and unfortunately came together for some eight metres, necessitating a very serious and anxious " fishing " job. Drilling was recommenced within three months and the well had not to be abandoned. Everything was put in order and a string of 5-inch casing inserted, and drilling recommenced on March 2nd, but unfortunately on March 16th, while moving the 5-inch casing, it parted at about 127 metres from the surface, leaving about 1,000 metres in the well, of which 732 metres have already been extracted, and no difficulty is expected in getting out the rest. Well No. 6—809 metres, 10-inch casing 808 metres. Very good gas shows have been met with during the last 40 metres, and a good oil show was obtained at 782 metres. Well No. 8—590 metres, 10-inch casing 586 metres. Progress lately rather slow owing to alternate layers of hard and caving formation which prevents rapid drilling.

**Roumanian Consolidated Petroleum Company, Ltd.**—Production week to April 11th, 1,128 tons. Cable from Ploesti, dated April 10th : " Moreni, well No. 30 struck oil sand midnight, depth 764 metres (2,506 ft.). Very strong eruption oil and sand lasting five hours. Eruption stopped after complete string drill-stem cut by sand dropped back in wall. Dams immediately filled with sand ; could not save oil." Cable, April 12th : " Well No. 30 started flowing again last night at eleven o'clock. Flowing at rate of 400 tons per day. Saving all oil. Still flowing." Cable, April 13th : " Moreni No. 30 still flowing. Got pumps going yesterday. Total oil tanked so far 750 tons. Have still large quantities in dams." Cable, April 14th : " Moreni No. 30 stopped flowing for three hours during night, but again resumed. Estimate (production) about 500 tons per day. On account of large percentage paraffin in oil, pumping extremely difficult. Oil will only move during heat of day. Have now installed steam heaters to facilitate pumping ; expect to pump continuously to-day. Our refineries estimate value of oil at 95 francs (£3. 16s.) per ton."

## NEW ENGLISH COMPANIES.

### THE DANUBE OIL TRADING COMPANY, LTD.

REGISTERED on April 7th by Wansey, Stammers & Co., 28, Moorgate Street, E.C. Capital, £700,000 in £1 shares (400,000 preference). Objects: To erect an oil refinery and establish an oil export and trading station at Braila, Roumania, and to acquire and operate oil lands, wells, and an existing refinery situate at Bacau, Roumania, and to carry on the business of extracting, pumping, drawing, purifying, and dealing in petroleum and other oils, etc.: also to enter into an agreement with M. Munteanu and the Cities Contract Corporation, Ltd. Minimum cash subscription, 1,000 shares. Signatories: S. R. Stammers, "Beaconsfield," 21, Grosvenor Road, Gunnersbury, W.: W. W. Griffiths, 76, Strathleven Road, Brixton, S.W.; G. R. Athoe, 99, Tennyson Road, West Ham, E.: J. G. Dunbar, 23, Church Avenue, Mortlake, S.W.; P. R. Wilks, 18, Vale Road, Sutton, Surrey; C. J. Widdicombe, 72, Chichester Road, Leytonstone; and J. Hilleard, Wansborough Grove, Westcliff-on-Sea. First directors are to number not less than three nor more than nine. Mr. M. Munteanu is the first managing director. Qualification (except managing director), £250. Remuneration, £200 each per annum (chairman, £300). Registered office, 28, Victoria Street, S.W.

### THE NEW RYPNE OIL SYNDICATE, LTD.

Registered on April 8th by W. B. Styer, 11 & 12, Fenchurch Street, E.C. Capital, £25,000 in £1 shares. Objects: To acquire petroleum or oil-bearing lands in Austria or elsewhere, and to carry on the business of dealers in and refiners of petroleum and other mineral oils, and the products thereof, etc. Signatories: E. Nissen, "North View," Nether Street, North Finchley, N., and A. E. Spearman, 18, North View Villas, Ewell, Surrey. First directors (who are to number not less than two nor more than five) are to be appointed by the signatories. Private company.

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## RECENT PUBLICATIONS.

### "OIL PRODUCTION METHODS."

UNDER this title we have received a particularly interesting work from the joint pens of Mr. Paul M. Paine, assistant superintendent of the Honolulu Consolidated Oil Company, and Mr. B. K. Stroud, petroleum engineer and formerly superintendent of the Monte Cristo Oil and Development Company. The book, which is published by the Western Engineering Publishing Company, San Francisco, is splendidly illustrated, and contains numerous diagrams, etc., while its two hundred odd pages are filled with a wealth of information relating to methods of oil production. The contents are divided into eight chapters, and these deal with the various phases of the subject treated as under:—(1) The distribution, properties, and uses of petroleum; (2) geology; (3) rigs and equipment; (4) drilling methods; (5) the exclusion of water from oil sands; (6) production; (7) fishing tools and methods; and (8) accounting systems. We have carefully perused the book from cover to cover, and can confidently recommend it to every student of oilfield development who desires to be well informed upon the numerous matters which are so inseparably associated with oil production.

### "EL PETROLERO."

"El Petrolero" is the title of a comparatively recently-established journal for the dissemination of information concerning the Mexican petroleum industry, the fourth issue of which is to hand during the present week. The journal is nicely illustrated, and the text-matter published in Spanish, with an English section attached. The journal is independent and published weekly, its offices being in Mexico City.

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**Dr. Leopold Singer.**—Our readers will be interested in learning that Dr. Leopold Singer has recently been appointed first technical director and chief of the scientific laboratory of the Mineralol-werke, Dusseldorf—a concern belonging to the Shell-Royal Dutch combine.

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# THE PROGRESS OF LIQUID FUEL.

## IMPORTANT ADDRESS BY Mr. J. VEITCH WILSON.

(*Continued from page* 428.)

Petroleum.—Had I written this paper a few years earlier I should probably have endeavoured to present you with a list of the countries in which petroleum had been found, but as it is now known to all readers of the newspapers that oil has been found in every part of the civilised globe, and in some parts which have not yet come within the pale of civilisation, such a geographical enumeration is unnecessary.

From petroleum we obtain the greatest variety of products suitable for as many different types of engine:—

(1.) Spirit or "petrol," ranging in regard to specific gravity, from 670 to 760. This is adapted for use in motor and some launch engines.

(2.) Kerosene, paraffin, or lamp oil, having specific gravity from 800 to 825. This is used in commercial, stationary, and portable engines of the Premier, Hornsby, and similar types.

(3.) Solar oil, of about 840 to 850 specific gravity, is also used in engines of the preceding types, and is likely to give more power per gallon than the lighter oil, although it may be more difficult to volatilise.

The preceding are refined oils, those which follow are unrefined, or "semi":—

(4.) Heavy oil, semi-refined, of red colour, varying from 850 to 950 in specific gravity, according to country or origin.

(5.) Crude Oil. Judging from various conversations which I have had with internal combustion engineers, at home and abroad, I am led to think that these gentlemen generally have a very vague and indefinite idea of what is implied by the words "crude oil." In the oil trade "crude oil" is understood to mean and is applied only to the oil as it leaves the retorts in which it has been produced from coal or shale, or to petroleum in its natural condition in which it issues from the wells. But, as the oil, at this stage, contains all its more valuable constituents, *e.g.*, spirit, lamp oil, lubricating oil, and, perhaps, paraffin wax, it is more profitable, if means are available, to extract these products and to sell the residue as fuel. In my own experience I have found in use under this name dark-coloured distillates, such as we should describe as "gas oil"; heavy dark oils, probably crude oil with the lighter fractions removed; genuine crude oil, as one may say, "entire"; and residues from petroleum, coal, or shale oils, and gas tars.

(6.) The residues to which I referred in the last paragraph ought to form a group by themselves. Mr. William H. Booth, in his excellent work on "Liquid Fuel," describes them as follows:—

(A) Natural oils which have parted with their volatile portions under the influence of sun and air, and become natural "Mazut."

Borneo oil, which flashes at 100° C. (212° F.) is directly employed as fuel, and Texas oil, which appears to possess little other value than as fuel.

(B) Distillation residues, or "Mazut," which result from boiling off all the more volatile portions.

(7.) Finally, the late Dr. Diesel, in his last lecture in this country, that delivered before the Institution of Mechanical Engineers, in March, 1912, enumerates, as oils suitable as fuels for his engine, "fat oils from vegetable or animal sources, such as earthnut oil, castor oil, fish oils, etc." He adds in a footnote: "This class of oil has been added by the author from his own investigation of earthnut oil." Elsewhere, in the same paper, and speaking of earthnut oil, he says: "This oil is almost as effective as the natural mineral oils, and, as it can also be used for lubricating oil, the whole work can be carried on with a single kind of oil produced directly on the spot. Thus this engine becomes a really independent engine for the tropics." The curious thing is that, when, in my remarks upon this paper, I recommended compound lubricants, *i.e.*, oils containing a small percentage of vegetable oil, as lubricants for Diesel engines, the good doctor scouted my suggestion, saying that "unfortunately, vegetable oils seemed so liable to form acids when they became warm, that great precaution was required in their application for lubricating purposes. This formation of acid did not originate, as Mr. Wilson thought, from the oxygen of the surrounding air, but from the strong contents of chemically bound oxygen in the vegetable oil itself, so that acid was also formed when the oil was warmed in close vessels." But, if this is the case, why should it happen when only a small percentage of vegetable oil is used as a lubricant, and not when vegetable oil is used, pure and simple, as fuel?

Before I leave this subject, let me call attention to a serious danger inherent in the equivocal or ambiguous use of the expression "Crude Oil," which, as I have shown above, may denote either oil containing all its dangerous fractions, or oil from which these have been removed by distillation. If an engineer who has been using the latter, which we may call "reduced crude," with comfort and satisfaction, is, without notice, supplied with natural crude oil retaining all its volatile contents, and proceeds to use it without the precautions which its use involves, it is inevitable that danger, possibly culminating in disaster, may ensue.

This aspect of the question was referred to by Mr. R. J. N. Willcox, in his remarks in the discussion upon Dr. Diesel's paper.

Mr. Willcox specified these dangers as—

(1.) "The risk of explosion or fire on board the ship carrying the crude oil.

(2.) "The risk of damage by fire to other ships and to the warehouses and goods stored therein.

(3.) "The risk of a conflagration arising from the presence of oil floating over the surface of the water in a crowded dock. The presence of this oil might be due to leakage from the oil ship, from defect in construction, or from accident, such as collision, or from the oil being pumped overboard with bilge-water."

The danger would arise from the liberation from the oil of inflammable gases, which, accumulating, in imperfectly ventilated apartments, may be ignited by the furnace fire or by an open lamp.

Dr. Diesel replied that the danger was non-existent, and referred to the number of tank ships carrying crude oil and spirit in bulk without accident. It may, however, be pointed out that in such cases, the crew are aware of the dangerous nature of the cargo, and take such precautions as may be necessary.

The subject was also referred to by Sir Boverton Redwood, in his presidential address to the Junior Institution of Engineers, on December 5th last, when he said:—

"Crude petroleum of a low flash-point is largely used as a fuel in steam raising in the oilfields, but the oil fuel of commerce is usually required to be of a comparatively high flash-point, and is either a distillate or more commonly the residue of crude petroleum from which the more volatile fractions have been removed by distillation. The present and former British Admiralty Specifications for Navy oil fuel have recently been published, and it has thus been made known that the flash-point has been reduced from 200° F. to 175° F., close test."

I have taken up so much of your time in discussing the matters already referred to that I have left myself little for consideration of "Fuel Values," which should form a fitting conclusion to this paper. Fortunately, the subject has been, of late, so fully debated, alike in technical and in non-technical papers, that it will be sufficient now to put before you a few particulars gleaned from various recognised authorities, regarding the leading fuels under consideration.

The full titles of the books and authors referred to will be found in the Bibliography which is appended to this paper.

Table IV. (Booth) shows how Specific Gravity affects the expression of thermal values:—

| Specification. | Reduced Fuel Oil. | Distilled Fuel Oil. |
|---|---|---|
| Specific Gravity at 60° F. ... | 0·914 ... | 0·853 |
| Gravity, Baume ... ... ... | 23 ... | 34 |
| Weight per Imperial Gallon ... | 9·14 lb. ... | 8·53 lb. |
| Carbon ... ... ... ... | 87·72 ... | 86·19 |
| Hydrogen ... .. ... ... | 11·45 ... | 12·51 |
| Calories per Kilo ... ... ... | 11·000 ... | 11·250 |
| B. Th. U. per lb. ... .. ... | 19·800 ... | 20·250 |
| ,, ,, Imperial Gallon ... | 181·340 ... | 172·870 |

The interesting thing about this table is the demonstration which it affords, that although the oil of lower S.G. has the higher thermal value per lb., 20.250 B.T.U., as against 19.800 B.T.U. for the heavier oil, yet, the values are reversed when expressed per gallon. This is, of course, due to the fact that a gallon of lighter weighs less than a gallon of the heavier oil.

Table V. (Bluecher) gives the calorific values, in Calories, of a number of different substances used as fuels:—

| Materials. | Units. H.U. | Materials. | Units. H.U. |
|---|---|---|---|
| Perfectly Dry Wood ... | 3,750 ... | Petroleum Residues ... | 11,020 |
| Air-dried Wood ... | 2,900 ... | Hydrogen ... ... | 29,100 |
| Charcoal ... ... | 7,500 ... | Methane ... ... | 12,700 |
| Perfectly Dry Peat ... | 5,000 ... | Ethylene ... ... | 11,100 |
| Air-dried Peat... ... | 3,600 ... | Coal Gas ... ... | 10,600 |
| Peat Charcoal ... ... | 6,500 ... | Blast Furnace Gases ... | 1,070 |
| Brown Coal ... ... | 6,400 ... | Carbon Monoxide ... | 2,403 |
| Dry Coal ... ... | 6,900 ... | Alcohol ... ... ... | 7,183 |
| Ordinary Coal... ... | 8,100 ... | Ether ... ... ... | 9,027 |
| Bituminous Coal ... | 8,300 ... | Methyl Alcohol ... | 5,310 |
| Anthracite ... ... | 8,000 ... | Turpentine Oil .. | 10,850 |
| Coke ... ... ... | 7,100 ... | Sulphur ... ... | 2,165 |
| Crude Oil— | ... | Rape Oil ... ... | 9,500 |
| Heavy Pennsylvania | 11,520 ... | Lard ... ... ... | 9,380 |
| Heavy Caucasian ... | 11,188 ... | Tallow (Beef) ... ... | 9,357 |
| Light Caucasian ... | 12,240 ... | | |

Table VI. (Redwood) gives the calorific value of various Fuel Oils of different origins:—

| Source of Sample. | | Calories. | B.T.U. |
|---|---|---|---|
| Lucas Well, Spindle Top, Jefferson County ... | | 10·874 ... | 19·574 |
| Higgins Oil and Fuel Company ... ... | | 10·992 ... | 19·785 |
| Sour Lake, Hardin County ... ... ... | | 10·201 ... | 18·362 |
| Sour Lake, Hardin County ... ... ... | | 10·305 ... | 18·694 |
| North-east of Fort Stockton ... ... ... | | 9·655 ... | 17·387 |
| Near Dunlay, Medina County ... ... ... | | 9·372 ... | 16·807 |
| Dullnig Wells, Bexar Co... ... ... ... | | 8·531 ... | 15·356 |
| Walsh Tract, Bexar Co. ... ... ... ... | | 9·177 ... | 16·518 |
| Burma Fuel Oil ... ... | S.G. — ... | 10·794 ... | — |
| Borneo Fuel Oil ... ... | ,, — ... | 10·371 ... | — |
| Texas Fuel Oil ... ... | ,, 0·919 ... | 10·670 ... | — |
| Texas Fuel Oil ... ... | ,, 0·923 ... | 10·755 ... | — |
| Texas Fuel Oil ... ... | 0·935 ... | 10·748 ... | — |
| Texas Fuel Oil ... ... | 0·941 ... | 10·957 ... | — |
| Russian Kerosene ... ... | — ... | 11·260 ... | — |
| Russian Solar Oil ... ... | 0·873 ... | 10·920 ... | — |
| American Petroleum ... | — ... | — ... | — |
| American Spirit ... ... | 0·684 ... | 12,210 ... | — |
| American Spirit ... ... | 0·694 ... | 12,220 ... | — |

Corresponding values for coal and for other fuels will be found in the preceding table.

*(To be concluded.)*

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## PATENTS.

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*The undermentioned "Applications Published" are all in the stag in which opposition to the grant of patents upon them can be made.*

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### Applications Published.

**Manufacture of nitro-products from petroleum and tar**—Albert Solon Flexer, of Hauptstrasse 114, Vienna III., Austria No. 16031 of 1913. This relates to a process for the manufacture of nitro-products from a mixture of petroleum and tar with the aid of nitric acid, consisting in subjecting petroleum in the presence of tar to the action of concentrated nitric acid and cooling.

**Liquid fuel burners.**—Launcelot Eustace Smith, of High Docks South Shields, Durham. No. 18571 of 1913. This relates to means for mounting a liquid fuel burner upon a furnace front comprising a valve casing furnished with a stirrup adapted to receive a burner holder and means for attaching the holder in the stirrup.

**Devices for atomising liquid fuel particularly applicable to burners using heavy oils.**—Carl Hofmann, of Mannheim L. 13, 9, Germany. No. 18610 of 1913. This relates to a burner for use with heavy oils and like liquid fuel, and consists in the provision of means for atomising the oil comprising radial nozzles straight throughout their whole length and adapted to throw the oil against rigid surfaces, the nozzles being rotated by the inflowing air.

### Applications Filed.

**Means for heating the supply of liquid fuel to burners.**—Launcelot Eustace Smith. No. 5308 of 1914.

**Production of gaseous fuel from liquid fuel.**—Alfred William Southey. No. 5331 of 1914.

**Method of and apparatus for expressing oil.** — Hermann Zander. No. 5706 of 1914.

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## BAKU PETROLEUM PRODUCTION DURING FEBRUARY.

The total production of crude oil in the Baku district during February amounted to 36.773,802 poods, of which 23,947,158 poods were obtained on the old areas, 7,956,821 poods on the Bibi-Aibat area, and 4,869,823 poods on the Surakhani area. The above production includes 1,661,507 poods of spouted oil obtained on the Bibi-Aibat area, 700,000 poods at Ramani, and 2,754,275 poods of spouted oil on the Surakhani area. Besides the above production there were obtained 620,000 poods from hand-dug wells. The production of the principal firms during the month was as under :—

| | Poods. |
|---|---|
| Nobel Bros. Society ... ... ... | 4,686,589 |
| Caspian and Black Sea Company ... | 2,889,330 |
| Zoubaloff ... ... ... ... ... | 2,306,000 |
| Baku Petroleum Company ... ... | 3,816,469 |
| Mantascheff ... ... ... ... | 2,297,650 |
| Mirzoeff Bros. Society ... ... ... | 1,252,900 |
| Benkendorff & Co. ... ... ... | 663,954 |
| Caspian Society ... ... ... ... | 1,144,880 |
| Russian Nafta Society ... ... ... | 996,250 |
| Moscow Caucasian Society ... ... | 909,000 |
| Runo ... ... ... ... ... | 709,700 |
| Pitoeff & Co. ... ... ... ... | 861,300 |
| Rilski Trustees ... ... ... ... | 553,500 |
| Asadullaeff .. ... ... ... | 647,840 |
| Kavkaz Company ... ... ... | 583,300 |
| Aramazd Company ... ... ... | 555,034 |
| Born ... ... ... ... ... | 518,350 |
| Nagieff Musa ... ... ... ... | 507,023 |

# PETROLEUM AND ITS DERIVATIVES.

By **DAVID T. DAY, Ph.D.**

(*Continued from page* 426.)

We can think of the petroleum which is produced in the West as all containing more or less of Pennsylvania oil, with greater or less admixture of asphalt, and, in the case of California oil, considerable proportions of members of the coal-tar series.

For a long time these Western oils were not taken at all seriously, inasmuch as the supply was abundant of Pennsylvania and West Virginia oils. Moreover, the Western oils—that is, of Texas and California—were very difficult to refine. A process was soon found for refining Texas oils, but the California oil remained a problem. While it was easy to remove the asphaltic material, the coal-tar oils, such as benzol, toluol, etc., distilled over with the illuminating oil and made it burn with a smoky flame. One of the chemical engineers of the Standard Oil Company of California found, however, that fuming sulphuric acid—that is, sulphuric acid containing sulphur trioxide in solution—has the property of taking out these coal-tar oils quite completely and furnishing a very satisfactory kerosene. With this discovery the refining of California oils progressed rapidly in spite of the fact that in distilling off all the available kerosene the total proportion obtained was comparatively small. This difficulty of extracting coal-tar hydrocarbons from petroleum has been met with to even greater extent in Roumanian oils, and there a still more modern process has been applied, though too recently for an estimate of its practical value. By this the distillate containing coal-tar oils s treated with liquid sulphur dioxide, which extracts he coal-tar oils in preference to the paraffin hydroarbons, and thus renders the latter suitable for lamp oils. This ingenious process, moreover, admits of eparating finally the coal-tar oils in a condition suitable or use, whereas they are practically destroyed when eparated by means of fuming sulphuric acid. Thus o-day there are no varieties of crude petroleum in the United States which cannot be refined satisfactorily, although the yields of refined products in the West re by no means so great as with the Eastern oils.

Heavy Texas and California oils can also be made o yield very satisfactory lubricating oils. A process s under way which probably will give considerable yields of paraffin wax, even from California oils, in which, naturally, almost no paraffin wax is present.

The amount of oil refined and the amount used for other purposes are now merely questions in the United States of a market for the resulting products. f all our oils were used in the United States and not xported, the oils of the East and of Oklahoma would e an abundant source for all the desired kerosene, nd perhaps gasoline as well, but about one-fifth f all our oil is exported in one form or another, especially erosene.

As each year goes by, technologic improvements in the treatment of petroleum make this material more flexible for suiting all market demands, so that in general it may be said that enough oil is refined to meet the foreign and domestic demand, first, for kerosene and gasoline; then attention is given to the much smaller and more easily satisfied demand for lubricating oils; and, finally, to the ever-increasing demand for paraffin wax.

The rest of the product can always be gotten rid of at fairly lucrative prices for fuel oils. In fact, the price for fuel oil has almost doubled in the last five years.

In general, all of the Eastern oils are refined to the greatest possible extent, producing gasoline, kerosene, lubricating oils, paraffin wax, and a minimum of gas oil and fuel oils. In fact, it is the common practice to distil these oils entirely to coke with a production of practically no fuel oil.

As these oils are insufficient for the distillation needs of the country, large quantities of oil from Ohio, Indiana, Illinois, and Oklahoma are similarly refined to the utmost limit. The same is true of the oil from the Caddo (Louisiana) field and from the Electra region in northern Texas, where the oils are of Pennyslvania grade. Meantime the oils of Texas are largely used for fuel purposes, though a certain amount is sent in tank steamers to the Eastern States, or worked up at Port Arthur, on the Texas coast, for the production of superior lubricating oils.

Since all this does not suffice for the foreign and domestic demand for refined products, Wyoming is called on for similar use of its light-grade oils, the production of which is increasing very rapidly in the Salt Lake field, near Casper.

These oils above mentioned, comprising our total supply, apart from California, amounted to about 135,000,000 barrels in 1912, while California yielded 87,000,000 barrels more. This California contribution is the really flexible quantity. It can be used in so far as necessary for refining purposes, but principally as a great source of fuel oils and for road asphalts. This supply of fuel oil will enter significantly into Eastern commerce with the opening of the Panama Canal.

Since this lecture was prepared the United States Geological Survey has pointed out the existence of very large bodies of oil shales in Colorado and Utah, which are richer than the Scottish oil shales. Some will yield two barrels of oil per ton by distillation, while the usual oil-bearing sands yield less than half that much. Shales yielding 30 gallons per ton of crude oil probably exist, according to estimates of Mr. E. G. Woodruff, of the Geological Survey, capable of yielding *fifteen billion barrels* of crude oil.

Two other sources add to the total oil supply of the

United States, namely, considerable imports of heavy Mexican crude oil, suitable principally for road asphalt and fuel oil. This Mexican importation will undoubtedly steady the price of fuel oil in the next year, as some twenty of the largest tank steamers afloat have been built for this trade and will bring large quantities to the Eastern ports. The second source is light distillate, yielding large proportions of gasoline and coming from Borneo and Java to Pacific ports. Thus, while we are exporting gasoline on the Atlantic Coast we import it on the western shore.

The total production of petroleum in the United States is now, roughly, 240,000,000 barrels. This means two-thirds and more of all the petroleum produced in the world. And yet the first commercial development of significance took place barely half a century ago. There is now no sea whose waters are not churned by the propellers of oil-burning steamships, no country whose roads have not seen the gasoline motor car, and no village in the civilised world in which the flame of kerosene or some form of petroleum does not illuminate some house, and thousands of miles of highways are kept free from dust or otherwise improved by petroleum oil.

We owe our standing in national intelligence to the light of the kerosene lamp. We owe our greatest industrial characteristic—flexibility in manufacturing processes—to the national habit of reading. Kerosene light has been cheap, and is cheaper in the United States than anywhere else, and it has prevented all other lights from following the high price of living.

### Foreign Ownership of American Oil.

Petroleum has had its share in developing American prestige. It has done more than precious metals or precious stones. Probably more people have used kerosene than have ever seen a gold coin. The petroleum and natural gas produced last year outvalued our gold, silver, lead, zinc, and all other metals combined, except iron and copper.

I offer these quantities merely to stimulate the natural inquiry as to how we are administering this trust of national, natural advantage; an advantage over less favoured nations which it is a pledge of our patriotism to maintain. Are we maintaining it to the best purpose?

We are not. In no line of national conduct is the progress so recklessly devoid of any thought-out policy. Besides a system of production, which considers neither supply nor demand at home, we squander our heritage over the face of the earth, and we do worse. It may well be claimed as good public policy that our oil should spread out to less favoured hands as the handmaid of education where it will do the greatest good, and to this we must subscribe. No missionary can compete with the lamp, nor work without a lamp. But what policy broader than dollar greed can defend the sale of our greatest single weapon for national independence, our oil lands themselves, to foreign capitalists, if not to foreign nations?

Sir Marcus Samuel spoke in regard to this at the annual shareholders' meeting of the Shell Transport & Trading Company, Limited, in London, October 10th. The speech was given wide publicity in the English Press.

The facts are open to every one, but recognised by few, that 25,000 barrels a day, over 12 per cent. of the oil in Oklahoma, are produced by foreign companies, and the foreign ownership in California is increasing even faster.

The chief significance of this is that practically every foreign power is adopting oil in place of coal for its battleships, and a supply of oil is requisite for this purpose.

There is no opportunity here to develop a policy, but there is an opportunity for directing thought, and I bespeak the influence of this time-honoured institution, developed within the sound and in the spirit of our national Liberty Bell, in giving sympathy and counsel to our national government as to these problems when developing petroleum legislation.

This consideration naturally suggests the vital question of an adequate gasoline supply. Even if we produce 25,000,000 barrels of gasoline in the next year, this would probably be too little for a year or two of further automobile progress.

The means for meeting the demand are in sight.

This answer is far easier to state than to explain. In the first place, recent developments in knowledge of the resources of the United States make it probable that there will be no great decline in oil production in the near future, therefore no *decline* in gasoline supply is likely. As to the necessary increase: this will come from synthetic gasoline obtained from petroleum itself. To make this clear it is necessary to refer in great detail to the nature of petroleum. We know that this long series of oils which mixed together constitutes petroleum begins with oils which boil more easily than other, and each following one in the series boils at a higher temperature. By distilling out those which boil below 300° Fahr. we obtain from Pennsylvania oils about 20 per cent. of so-called naphtha. By redistilling this we obtain gasoline, but the naphtha itself is fairly suitable for automobiles. The mid-continent oils yield slightly smaller proportions of gasoline. The oils of northern Louisiana and Texas yield as much as Pennsylvania. The gasoline yield from the Gulf Coast of Texas and Louisiana and from California is very much less, so that at present the west coast is practically left out of consideration, and its gasoline is supplemented by importation from the Orient.

After the natural yield of gasoline has been taken from crude oils, the remaining portion boils at too high temperatures to be suitable for automobiles, although the higher boiling kerosene is used successfully under exceptional conditions which cannot be considered here. Therefore the limit of gasoline would seem to be reached —were it not for the fact that many oils break up into lighter oils when heated.

(*To be continued.*)

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO SWEDEN DURING 1913.

The imports of petroleum products into Sweden during 1913 were as follows:—

| | |
|---|---|
| Kerosene ... ... ... | 120,346 tons. |
| Paraffin ... ... ... | 3,259 „ |
| Other products ... ... | 59,274 „ |

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

April 17th, 1914.

There are no alterations in the prices of Refined Petroleum, which remain as follows:—Russian, 7¾d.; American, 8d.; American Water White, 9d.; Roumanian, 7½d.; Galician, 7½d.

### LUBRICATING OILS

are unchanged, the following being the current prices:—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL

is quoted 65s. per ton, ex wharf.

### GREASE-MAKING OIL

The market price is 70s. per ton, ex wharf.

### MOTOR SPIRIT.

The retail price in London is 1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality.

### TURPENTINE.

American Turpentine is quoted, spot, 32s. 1½d.; May, 32s. 3d.; May/August, 32s. 7½d.; September/December, 33s. 4½d.

## LIVERPOOL.

April 16th.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American. Petroleum spirit moves off fairly well.

## INDIA.

Bombay, March 15th.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| ,, Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, April 16th.

Refined, in cases, is quoted at 11·25; Standard White, 8·75; Credit balances, 2·50.

Philadelphia, April 16th.

Standard White is quoted at 8·75.

## GERMANY.

Hamburg, April 15th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730; second quality (0·750–0·770 gravity), 32·00–33·00.

## RUSSIA.

Baku, April 14th.

The tendency of benzine is lower, that of gas oil and lubricating oils higher. Crude oil is quoted at 39½–40 copecs per pood spot. Kerosene, 48–48½ copecs. Residuals, 37½–38 copecs.

## ROUMANIA.

April 14th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·20–8·30 |
| ,, ,, ,, | Moreni ... | 7·50–7.80 |
| ,, ,, ,, | Tzintea ... | 6·00–6.50 |
| ,, ,, ,, | Policiori... | 5·75 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

### Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26·50 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## AUSTRIA.

April 14th.

Crude oil is quoted 7·00 kronen spot. Kerosene, 30 kronen at Oderberg. Benzine, 710/720, 34 kronen at Oderberg. Gas oil, 7·65–7·75 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 41·25.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date April 16th, as follows:—

Business has been practically at a stand owing to the Easter holidays, and prices are unchanged as under:—

1c 18¾×14 124 sheets 110 lbs. ... 13/4½ to 13/6 per box.
1c 20 ×10 225 ,, 156 ,, ... 18/9 ,, 18/10½ ,,

F.o.b. Swansea. Tin lining and iron hooping extra.

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

**Specially prepared for this Journal by the Customs House.**

FOR THE WEEK ENDED APRIL 13TH, 1914 (excluding any Imports which may not be disclosed)—

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| April. | LONDON— | | | |
| 6 | Anglo-American Oil Co. ... | Lub. | 39,960 | Philadel. |
| 6 | Port Authority ... .. | ,, | 980 | Hamburg |
| 6 | J. Thompson... ... ... | ,, | 1,260 | Riga |
| 6 | L. Freeland ... ... ... | Lub. Gr. | 1,090 | Antwerp |
| 6 | Asiatic Petroleum Co. ... | Benzine | 5,000 | Rotterdam |
| 7 | Schliemanns Oil, etc., Co. ... | Lub. Oil and Gr. | 4,470 | Hamburg |
| 7 | Bowring Petroleum Co. ... | Lub. | 5,600 | Philadel. |
| 7 | Hanseatic Maritime Agency | ,, | 300 | Bremen |
| 7 | Port Authority ... ... | ,, | 680 | Hamburg |
| 7 | L. Freeland .. .. ... | Lub. Gr. | 1,260 | Antwerp |
| 8 | Port Authority ... ... | Lub. | 3,740 | Hamburg |
| 8 | ,, ... ... | ,, | 480 | Marseilles |
| 8 | Anglo-American Oil Co. ... | Fuel | 622,360 | Port Arthur |
| 9 | Mercantile Lighterage Co.... | Lub. | 10,400 | New York |
| 9 | Leach & Co. ... ... ... | ,, | 80 | Ghent |
| 9 | J. Harrison ... ... ... | Lub. Gr. | 840 | Antwerp |
| 9 | L. Freeland ... ... ... | Lub. | 130 | ,, |
| 9 | Asiatic Petroleum Co. ... | Benzine | 1,344,000 | Balek Pappan |
| 11 | Hanseatic Maritime Agency | Lub. | 280 | Bremen |
| 11 | E. G. Boize ... ... ... | Lub. Oil and Gr. | 190 | Hamburg |
| | LIVERPOOL— | | | |
| 6 | Huxley & Co. ... ... | Lub. | 1,090 | New York |
| 6 | F. Chiesman & Co. ... ... | ,, | 1,990 | ,, |
| 7 | Meade-King, Robinson & Co. | ,, | 3,200 | ,, |
| 7 | Vacuum Oil Co. ... ... | ,, | 1,350 | ,, |
| 7 | Liverpool Warehousing Co. | ,, | 2,800 | ,, |
| 7 | Pickford's ... ... ... | ,, | 40 | Hamburg |
| 7 | A. Hopps & Sons ... ... | Lub. Resid. | 7,800 | St. John's |
| 7 | Bramwell, Fern & Co. ... | ,, | 2,650 | ,, |
| 7 | Anglo-American Oil Co. ... | Lub. | 42,800 | New York |
| 8 | Meade-King, Robinson & Co. | ,, | 2,800 | ,, |
| 8 | J. Light & Son ... ... | ,, | 2,000 | ,, |
| 8 | W. Gibson & Sons ... ... | Lamp | 2,050 | Boston |
| 9 | Meade-King, Robinson & Co. | Benzine | 50,000 | Rotterdam |
| 9 | L. & N.W. Railway ... ... | Lub. | 120 | New York |
| 9 | Great Western Railway ... | ,, | 400 | Hamburg |
| 11 | Crew, Levick & Co.... ... | M. Colza | 22,270 | Baltimore |
| 11 | ,, ... ... | Lub. | 2,730 | ,, |
| | BOSTON— | | | |
| 7 | W. F. Beaumont ... ... | ,, | 480 | Hamburg |
| | BRISTOL— | | | |
| 6 | E. Stock & Sons ... .. | ,, | 480 | ,, |
| 7 | Colthurst & Harding ... | Lub. Gr. | 240 | ,, |
| 9 | C. Hill & Sons ... ... | Lub. | 14,100 | New York |
| 9 | Ford & Canning ... ... | ,, | 8,450 | ,, |
| 9 | Pickford's ... ... ... | ,, | 400 | Antwerp |
| 11 | H. Pritchard & Co. ... ... | ,, | 500 | Hamburg |
| | GLOUCESTER— | | | |
| 11 | Bristol Steam Navig. Co. ... | ,, | 1,320 | ,, |
| | GRIMSBY— | | | |
| 7 | J. Sutcliffe & Son ... ... | ,, | 100 | Antwerp |
| | HARWICH— | | | |
| 6 | Great Eastern Railway ... | ,, | 30 | ,, |
| 7 | ,, .. ... | ,, | 480 | ,, |
| 8 | ,, .. ... | ,, | 240 | ,, |
| 9 | ,, ,, ... | ,, | 400 | ,, |
| | HULL— | | | |
| 6 | Wilson's & N. E. Railway ... | ,, | 120 | Hamburg |
| 6 | ,, ,, ... | ,, | 560 | Antwerp |
| 8 | T. Wilson, Sons & Co. ... | ,, | 40,200 | New York |
| 9 | W. Gilyott & Co. ... ... | ,, | 8,800 | ,, |
| 9 | T. Wilson, Sons & Co. ... | ,, | 2,000 | Riga |
| 9 | ,, ,, ... | ,, | 120 | Libau |
| 9 | Wilson's & N. E. Railway ... | ,, | 2,040 | Hamburg |
| 9 | ,, ,, ... | ,, | 120 | Dunkirk |
| 9 | ,, ,, ... | ,, | 420 | Antwerp |
| 11 | T. Wilson, Sons & Co. ... | ,, | 4,000 | Stettin |
| April. | MANCHESTER— | | | |
| 7 | Liverpool Storage Co. ... | M. Colza | 7,560 | Philadel. |
| 7 | Bramwell, Fern & Co. ... | Lub. | 31,940 | ,, |
| 7 | ,, ,, ... | Lub. Resid. | 1,050 | ,, |
| 7 | J. S. Holt & Moseley, Ltd. ... | Lub. Gr. | 110 | ,, |
| 7 | Worthington & Boler ... | Turps Sub. | 1,700 | ,, |
| 8 | Crew, Levick & Co. ... ... | Lub. | 6,910 | ,, |
| 8 | ,, ,, ... ... | M. Colza | 1,670 | ,, |
| 8 | Liverpool Storage Co. ... | Lub. | 13,530 | New York |
| 8 | Crew, Levick & Co. ... ... | ,, | 5,680 | Philadel. |
| 8 | Diamond Lubricating Co. ... | ,, | 2,940 | ,, |
| 8 | D. Currie & Co. ... ... | ,, | 280 | Hamburg |
| 8 | T. Thoresen ... ... ... | Benzine | 210 | Sandjford |
| 9 | W. W. Jones, Dooly & Co.... | Lub. Gr. | 5,350 | New York |
| 9 | Anglo-American Oil Co. .. | Lub. | 85,830 | ,, |
| 9 | J. T. Fletcher & Co. ... | Lub. Gr. | 800 | Antwerp |
| | NEWCASTLE— | | | |
| 9 | Tyne-Tees Steamship Co. ... | Lub. | 120 | Hamburg |
| | NEWPORT— | | | |
| 6 | M. Jones & Co. ... ... | ,, | 120 | Antwerp |
| | SWANSEA— | | | |
| 7 | R. Turpin & Co. ... ... | ,, | 4,600 | New York |
| | ABERDEEN— | | | |
| 13 | R. C. Reid & Co. ... ... | ,, | 2,000 | Hamburg |
| | GLASGOW— | | | |
| 19/2 | Anchor Line ... ... | ,, | 4,800 | New York |
| 7 | ,, ... ... | ,, | 29,040 | ,, |
| 8 | Clyde Shipping Co. ... ... | ,, | 400 | Riga |
| 9 | Allan Bros. & Co. ... ... | Lub. Oil and Gr. | 47,680 | Philadel. |
| 9 | ,, ... ... | M. Colza | 2,600 | ,, |
| 9 | Donaldson Bros. ... ... | ,, | 920 | Baltimore |
| 9 | ,, ... ... | Lub. | 2,800 | ,, |
| | LEITH— | | | |
| 6 | Jas. Currie & Co. ... ... | ,, | 760 | Hamburg |
| 6 | ,, ... ... | ,, | 840 | ,, |
| 6 | G. Gibson & Co. ... ... | ,, | 200 | Ghent |
| 6 | ,, ... ... | ,, | 220 | Antwerp |
| 9 | G. Gibson & Co. ... ... | ,, | 2,000 | ,, |
| 9 | Jas. Currie & Co. ... ... | ,, | 120 | Hamburg |
| 11 | ,, ... ... | ,, | 120 | ,, |
| 13 | G. Gibson & Co. ... ... | ,, | 240 | Ghent |
| | BELFAST— | | | |
| 9 | G. Heyn & Sons ... ... | ,, | 1,110 | Riga |
| | DUBLIN— | | | |
| 8 | P. Murphy & Co. ... .. | ,, | 180 | Antwerp |
| | GRANTON— | | | |
| 6 | Asiatic Petroleum Co. ... | Benzine | 403,000 | Rotterdam |
| | | | 2,944,220 | |

**Continental Petroleum Co.,**

ANTWERP, BELGIUM.

**PETROLEUM PRODUCTS.**

Water White. Prime White. Fuel Oil. Gasoline.
Engine Naphtha. Gas Oil.

**ALL GRADES OF LUBRICATING OILS.**

Liquid Asphalt. Paraffin. Hard Asphalt.
Petroleum Jelly, etc.

**LARGE STORAGE PLANT.**

**SHIPMENTS IN BULK, BARRELS AND CASES.**

Telegraphic Address: "CONTOLEUM, ANTWERP."
*Head Office:* 39, Rue des Tanneurs, Antwerp.

*From Lloyd's*

April 16th, 1914.

# THE "REVIEW" SHIPPING LIST.

e *following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared. The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ORNA | Port Costa | Pisagua | Arr. Arica ab't April 13 |
| ERICAN | Antwerp | New York | Pd. Scilly Apr. 4 |
| PALACHEE* | Tyne | Kustendje | Pd. Sagres Apr. 8 |
| SCHERON | Spezia | Batoum | Pd. Dard. Apr. 10 |
| AL | Tyne | New Orleans | Pd. Dungeness April 6 |
| AS | Rouen | Newport | Arr. April 4. In port April 14 |
| CA | Dalny | Balek Pappan | L. April 1 |
| THUR VON GWINNER | Kustendje | Hamburg | Arr. Mar. 29. In port April 6 |
| HTABULA* | Callao | Lobitos | L. Feb. 21 |
| TRAKHAN | New Orleans | Sunderland | L. Norfolk, Va., April 3 |
| REOLE | Philadelphia. | Barrow | Pd. Delaware B'water April 4 |
| OV | Talara Bay | San Francisco | Arr. April 1 |
| KU STANDARD | Portland | Philadelphia. | Arr. Barry Apr. 11 In port Apr. 14 |
| LAKANI □ | Port Arthur | Manchester | Arr. Apr. 12. In port April 14 |
| RNESON | Tyne | San Pedro | Arr. April 9 |
| TOUM | Jacksonville. | Sheerness | Pd. Prawle Pt. April 14 |
| YONNE | Genoa | Sabine | Pd. Gib. Mar. 24 |
| ACON LIGHT | Abadan | U. Kingdom | L. Port Said April 10 |
| ECHWOOD | Cienfuegos | Liverpool | Arr. April 1 |
| OMFIELD | P. Mexico | Vera Cruz | Arr. Mar. 15 |
| RJOM | Batoum | Alexandria | Arr. April 7 |
| ILLIANT (Br. Bq.) | Hong Kong | New York | Pd. Anjer Feb. 19 |
| ILLIANT | Port Arthur | Swinemunde | L. Norfolk, Va., April 4 |
| ITISH SUN | Trinidad | London | L. Madeira Apr. 12 |
| OADMAYNE | Tyne | Kustendje | Pd. Gib. Apr. 13 |
| FFALO | Taku | San Francisco | L. Mar. 25 |
| LLMOUTH △ | Balek Pappan | Hangkow | L. April 6 |
| LYSSES △ | Tyne | Malta | Pd. Gib. April 15 |
| RGERMEISTER PETERSEN | Sabine | Carlsham | L. Norfolk, Va., April 2 |
| YO MARU | Bombay | Rangoon | Arr. Mar. 19 |
| A. CANFIELD* | Tampico | Galveston | Arr. April 6 |
| LCUTTA (Br. Bq.) | Yokohama | San Francisco | Arr. Feb. 23. In port Mar. 24 for Shanghai |
| MILLO | Port Arthur. | Sheerness | L. Norfolk. Va., April 10 |
| TAIN A.F. LUCAS | — | — | T. U.S., Pacific |
| RDIUM △ | Balek Pappan | Europe | Pd. Singapore April 6 |
| RPATHIAN □ | London | Port Arthur. | Pd. Dover Apr. 10 |
| SSIS | Clyde | New York | 85 miles W. of Malin Hd. Apr. 8 |
| STOR | Singapore | Colombo | L. April 11 |
| UCASIAN □ | Port Arthur | London | Arr. Newport News April 8 |
| ARLES E. HARWOOD | Tampico | Sabine | 180 miles S. of Galveston Apr. 1 |
| ARLOIS | Rotterdam | Sabine | Pd. Sand Key April 14 |
| ATHAM | Tampico | New Orleans | Arr. April 3 |
| ESTER | New York | Antwerp | Pd. Scilly Apr. 15 |
| EYENNE | Liverpool | — | 40 miles S.E. of Land's End Apr. 12 |
| CASSIAN PRINCE | — | — | T. W.C.S. America |
| Y OF EVERETT | Jacksonville | Sabine | L. Mar. 22 |
| AM △ | Taketoya | Balek Pappan | L. April 9 |
| EARFIELD | Port Arthur. | Taranto | Pd. Gib. Apr. 11 |
| MANCHEE | Liverpool | Sabine | 60 miles E. of Brow Hd. Apr. 1 |
| NCH △ | Tyne | Malta | Pd. Dover Apr. 10 |
| NRAD MOHR | New York | Bergen | L. April 4 |
| RDELIA | San Francisco | Tocopilla | L. Pt. San Luis Mar. 16 |
| WRIE △ | San Francisco | Tientsin | Arr. ab't Apr. 14 |
| RRIER | Guanica | New York | Arr. April 5 |
| MBELINE | Gothenburg | Tyne | Arr. Mar. 17. In port April 13 |
| RENA | Singapore | Auckland | L. Mar. 27 |
| AR NICOLAI II. | Rouen | Batoum | Cl. C'nople Apr. 9 |
| GHESTAN | Antwerp | Philadelphia | Pd. Lizard Mar. 30 |
| NUBIAN □ | Port Arthur. | Rotterdam | Arr. N. News Ap. 8 |
| YLIGHT (Br. Bq.) | New York | Japan | Arr. Philadelphia April 2 |
| LAWARE* | Port Arthur | Sunderland | 30 miles S. of Caister Apr. 15 |
| DELPHIN | Baton Rouge | Channel | L. April 12 |
| DERBENT | Partington | Batoum | Pd. Constantinople Apr. 14 |
| DESABLA | Taltal | San Pedro | L. April 5 |
| DEUTSCHLAND | Philadelphia. | Copenhagen | L. April 3 |
| DIAMANT | New York | Copenhagen | L. April 8 |
| DONAX | Tyne | Kustendje | Pd. Dard. Apr. 13 |
| EBURNA △ | Singapore | Gibraltar | L. April 8 |
| EDWARD L. DOHENEY | Galveston | Tampico | L. Mar. 29 |
| EL LOBO | Lobitos | San Francisco | L. April 5 |
| EL SEGUNDO | Honolulu | San Francisco | L. Tacoma Mar. 14 |
| EL TORO | Campana | New Orleans | Arr. ab't Apr. 8 |
| ELAX △ | Rotterdam | — | Pd. Ushant Ap. 10 |
| ELBRUZ | Tyne | Amsterdam | Arr. In port April 13 |
| ELISE MARIE | Hamburg | Sabine | Arr. ab't Apr. 13 |
| ELSINORE | Panama | Port San Luis | L. Mar. 30 |
| EMANUEL NOBEL | Kustendje | Hamburg | P. Dard. Apr. 10 |
| ENERGIE | Tuxpan | Baltimore | Arr. April 9 |
| ERIVAN | Batoum | Dunkirk | L. April 14 |
| ESCALONA | Tampa | New Orleans. | Arr. April 3 |
| ESTURIA | Palembang | Singapore | Arr. April 10 |
| EUPION | Sunderland | New York | Arr. Feb. 27. In port April 3 |
| EUPLECTELA △ | Balek Pappan | Singapore | Arr. April 10 |
| EXCELSIOR | Copenhagen | Philadelphia. | P. Dunnet Hd. April 1 |
| F. A. TAMPLIN | Manchester | Puerto Mexico | Arr. April 10 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | — | Yokohama | Arr. April 5 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port April 3 |
| GENESSE* | Avonmouth | Liverpool | Arr. Mar. 25 |
| GEORGIAN PRINCE | Port Arthur | Belfast | L. Norfolk, Va., April 4 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Punta Arenas, Mag., ab't Mar. 23 |
| HAGEN | Rotterdam | New York | Arr. April 14 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | San Francisco | Pisagua | Arr. April 8 |
| HARRY LUCKENBACH | Tampa | Baltimore | Arr. April 4 |
| HAVRE | Brisbane | — | L. April 9 |
| HELIOS | New York | Hamburg | L. April 12 |
| HERA | Rotterdam | New York | 20 miles S.E. of Lizard Apr. 5 |
| HERBERT G. WYLIE | New York | Tampico | 110 miles E. of Tampico Mar. 31 |
| HERMIONE | Portland | Port Arthur. | Pd. Lizard Apr. 14 |
| HESPERUS | San Francisco | Pisagua | L. April 5 |
| HORLEY | Tuxpan | Baltimore | Arr. April 5 |
| HOTHAM NEWTON | Middlesbro' | Port Arthur. | Pd. Sand Key ab't April 13 |
| HYRCANIA | Tyne | Port Arthur | Pd. Dunnet Hd. April 1 |
| ILLINOIS | New York | Port Arthur | 20 miles N. of Chanaral Mar. 25 |
| IMPEROYAL | — | — | T. St. Lawrence |
| IMPOCO | Naples | Kustendje | Pd. Dard. Apr. 14 |
| IROQUOIS (Towing Barge Navahoe) | New York | London | Cl. April 6 |
| J.B.AUG. KESSLER △ | Rangoon | Port Said | L. April 6 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. April 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Kustendje | Arr. St. Nazaire March 25 |
| JUNO △ | Singapore | Miri | Arr. prev. Apr. 2 |
| JUPITER | New York | Rotterdam | L. April 10 |
| KANAKUK | San Francisco | Bombay | Arr. ab't Apr. 13 |
| KASBEK | Batoum | Antwerp | Arr. Apr. 12. In port April 14 |
| KIOWA | Port Arthur | Stettin | L. April 6 |
| KIYO MARU | Shimonoseki. | Valparaiso | Arr Callao ab't April 7 |
| KOMETA | Kustendje | Rouen | Cl. C'nople Apr. 9 |
| KREMLIN | Tyne | Batoum | Cl. C'nople Apr. 8 |
| KURA | Blyth | Batoum | Pd. Dard. Apr. 9 |
| LA CAMPINE | Kustendje | Antwerp | Arr. Apr. 11 |
| LA FLANDRE | Antwerp | New York | Pd. Beachy Hd. Mar. 29 |
| LA HABRE | Tyne | San Francisco | Arr. Punta Arenas, Mag., ab't Apr. 15 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HESBAYE | Philadelphia | Antwerp | Cl. April 6 |
| LACKAWANNA* | Manchester | New York | 130 m. W. Brow Head April 6 |
| LAMPO | Philadelphia | Savona | Arr. April 13 |
| LE COQ □ | New York | Pasages | L. Santandor April 13 |
| LEDA | Hamburg | Baton Rouge | L. Norfolk, Va., April 13 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port April 6 |
| LUCELLUM | Kustendje | Portsmouth | Arr. April 15 |
| LUCERNA | Const'ntinople | — | L. Suez April 14 |
| LUCIGEN | Abadan | Portsmouth | Pd. Dover April 15 |
| LUCILINE □ | Novorossisk | Rouen | Arr. April 9 |
| LUMEN | New York | Marseilles | L. April 2 |
| LUTETIAN □ | New York | Rouen | Arr. April 10 |
| LUX □ | New York | Barcelona | Pd. Gib. April 16 |
| LUZ BLANCA | San Francisco | Taltal | Arr. Callao ab't Mar. 31 |
| MAKKAVEI | Kustendje | Smyrna | Cl. Constantinople April 9 |
| MANNHEIM | New York | Copenhagen | L. April 13 |
| MARGARETHA | Novorossisk | — | Pd. Gib. April 15 |
| MASCONOMO | San Francisco | Moji | L. Mar. 11 |
| MASSASOIT | Yokohama | Bombay | Arr. ab't April 1 |
| MEPPEN | Kustendje | Brunshausen | Arr. Cuxhaven April 12 |
| METEOR | Hamburg | Batoum | Arr. Odessa April 4. In port April 11 |
| MEXICAN PRINCE | Singapore | Shanghai | L. April 10 |
| MIJDRECHT | Rotterdam | Braila | Pd. Beachy Hd. April 12 |
| MINA BREA | Talara Bay | San Francisco | Arr. April 4 |
| MIRA | Novorossisk | Brunshausen | Pd. Dard. Apr. 10 |
| MITRA △ | Singapore | Calcutta | Arr. April 8 |
| MOHAWK* | Tuxpan | Philadelphia | Arr. April 5 |
| MOHICAN | Stockholm | Tyne | L. April 11 |
| MUREX △ | Singapore | Adelaide | Arr. ab't Apr. 12 |
| NARRAGANSETT | London | New York | Arr. April 14 |
| NATICA △ | Balek Pappan | — | Cl. Thames Haven April 15 |
| NELSON | New Orleans | Cuba | 40 miles W. of S.W. Pass Mar. 27 |
| NEW YORK* | Amsterdam | New York | Pd. Lizard Apr. 10 |
| NIAGARA | San Francisco | Chinkiang | L. Mar. 29 |
| NORMAN BRIDGE | Perth Amboy | New York | Arr. April 6 |
| OAKWOOD | London | Liverpool | Arr. Mar. 29 |
| OBERON | San Francisco | Ancon | L. San Luis Mar. 21 |
| OCEAN | Rotterdam | New York | Pd. Lizard Apr. 2 |
| OILFIELD | Tyne | New Orleans | Pd. Lizard Apr. 13 |
| ORIFLAMME □ | New York | Cette | L. April 7 |
| OSAGE | New Orleans | Tampico | L. Pt. Eads Apr. 4 |
| OTTAWA* | New Orleans | Avonmouth | L. Norfolk, Va., April 3 |
| OURAL | Batoum | Hamburg | Pd. Dard. Apr. 13 |
| PALEMBANG △ | Rangoon | Cochin | L. April 3 |
| PATELLA △ | Novorossisk | Singapore | Arr. Colombo ab't April 15 |
| PAUL PAIX | Swansea | New York | L. Mar. 24 |
| PAULA | Oporto | Sabine | Arr. Norfolk, Va., ab't April 13 |
| PAWNEE | New York | Hamburg | Pd. Dover Apr. 15 |
| PECTAN | San Francisco | Antofagasta | L. Port San Luis Mar. 21 |
| PENNOIL | Rotterdam | Philadelphia | Rtnd. Falmouth Mar. 31 |
| PETROLEINE | Rouen | Tyne | Arr. April 12. In port April 13 |
| PETROLEUM | Portsmouth | Invergordon | Signalled April 5 20 m. N.E. Caister |
| PHOEBUS | Pisagua | Junin | Arr. Mar. 23 |
| PINNA □ | Tyne | Port Arthur | Arr. April 14 |
| PONUS | San Francisco | Madras | L. Mar. 6 |
| POTOMAC* | New Orleans | Sabine | Cl. April 6 |
| POWHATTAN | Bombay | Singapore | L. Mar. 18 |
| PROMETHEUS | San Francisco | Pisagua | L. Mar. 23 |
| PRUDENTIA | Perth Amboy | Trinidad | L. April 6 |
| PURELIGHT | Port Arthur | Hamburg | Arr. April 12 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | L. Mar. 28 |
| RADIOLEINE | Port Arthur | Bremen | Arr. Havre Mar. 19. In port Ap. 14 |
| RANELLA △ | Batoum | Port Said | Pd. Constantinople April 14 |
| RENDOVA (Br. Bq.) | New York | Seville | L. April 4 |
| RICHMOND | Seattle | San Francisco | Arr. Mar. 11 |
| RION | Port Arthur | Amsterdam | L. Norfolk, Va., Mar. 31 |
| ROCK LIGHT □ | Hamburg | Tees | Arr. Mar. 25. In port April 14 |
| ROMANY △ | Singapore | — | Pd. Gib. April 14 |
| ROSALIND | Southampton | Mexico | Pd. Lizard Mar. 27 |
| ROTTERDAM | Rotterdam | New York | Arr. April 11 |
| ROUMANIAN □ | Kustendje | Amsterdam | L. April 13 |
| ROUMANIAN PRINCE | Tampico | Baltimore | Arr. April 5 |
| RUSSIAN PRINCE | — | Aransas | Arr. April 5 |
| SABINE RICKMERS | Amoy | Tamsui | L. April 10 |
| SALAHADJI △ | Soesoe | Singapore | Arr. April 9 |
| SAMOSET | San Francisco | Kuchinotzu | L. Mar. 14 |
| SAN ANTONIO | Rotterdam | Tuxpan | Pd. Dover Apr. 12 |
| SAN BERNARDO | Thames Haven | Rotterdam | Arr. Mar. 10. port April |
| SAN CRISTOBAL | — | — | T. Mexican Co |
| SAN DUNSTANO | Manchester | Tuxpan | Arr. Mar. 29 |
| SAN EDUARDO | Portsmouth | Mexico | Pd. Sand Key April 15 |
| SAN FRATERNO | Borneo | Sheerness | 200 m. S. Lan End April |
| SAN GREGORIO | Tyne | Puerto Mexico | Arr. April 3 |
| SAN HILARIO | London | Tuxpan | Pd. Lizard Apr. W. com. Apr. |
| SAN ISIDORO | Thames Haven | Tuxpan | Arr. April 12 |
| SAN JERONIMO | Borneo | Portsmouth | L. Mar. 29 |
| SAN JOAQUIN | San Francisco | Antofagasta | Arr. Mar. 29 |
| SAN LORENZO | New Orleans | Norfolk, Va. | L. April 8 |
| SAN RICARDO | Borneo | Portsmouth | L. S'g'pore Ap |
| SAN SILVESTRE | Dublin | New York | L. April 13 |
| SAN TIRSO | New Orleans | Trieste | Arr. Mar. 29 |
| SAN URBANO | Puerto Mexico | Rio Janeiro | L. April 7 |
| SAN VALERIO | London | Philadelphia | Pd. Bishop's Ro April 15 |
| SAN WILFRIDO | Tyne | Port Arthur | In wireless co April 10 |
| SAN ZEFERINO | Tyne | Port Arthur | Pd. Sand Key about April |
| SANTA MARIA | Honolulu | Port San Luis | L. Mar. 22 |
| SANTA RITA | Panama | Vancouver | Arr. ab't Apri |
| SATANTA | San Francisco | Kuchinotsu | L. April 2 |
| SAXOLEINE | Tyne | Philadelphia | Pd. Cape Wra April 5 |
| SEBASTIAN | Kustendje | Havre | Arr. Malta Apr |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. port April |
| SEQUOYA | San Francisco | Japan | L. Mar. 25 |
| SERVIAN □ | Batoum | London | Pd. Peniche Ap |
| SHABONEE | San Francisco | Dairen | L. Itosaki Mar |
| SILVIA | Sheerness | Persian Gulf | Arr. Perim Ap |
| SIOUX | Iquique | San Francisco | Arr. ab't April |
| SIRIUS (Ger.) | Kustendje | Genoa | Pd. Dard. Apr. |
| SOCONY | Philadelphia | Tampico | Pd. Sand Key Mar. 23 |
| SOYO MARU | — | — | Cd. Perim Apr. |
| SPLENDOR | Tunis | New York | Arr. April 10 |
| STAG | Antilla | Liverpool | Arr. April 14 |
| STANDARD | Amsterdam | Norfolk | Ab't 35 m. E. Lan End Mar. 20. Wi less com. Apri |
| STROMBUS △ | Port Arthur | Sheerness | L. April 9 |
| SULTAN VAN LANGKAT △ | Singapore | Balek Pappan | Arr. April 8 |
| SUNLIGHT (Br. Bq.) | Liverpool | San Domingo | Signalled Mar. 48 N. 7 W. |
| SURAM | Blyth | Kustendje | L. April 9 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 19. port April |
| SVIET | Alexandria | Kustendje | Arr. April 7 |
| TASCALUSAH | — | — | Arr. Sabang a April 3 |
| TATARRAX | Calcutta | Hong Kong | L. Mar. 19 |
| TEAKWOOD | Plymouth | New York | Pd. Lizard Ap |
| TECUMSOH | Tampico | New York | Arr. April 10 |
| TELENA △ | Alexandria | Abadan | Arr. Aden Apr |
| TEREK | Port Arthur | Manchester | L. New Orlea April 11 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. port April |
| TIFLIS | Tees | Braila | Pd. Dover Apr. |
| TONAWANDA* | Sunderland | Rotterdam | Arr. Mar. 13. port April |
| TRINCULO | — | San Francisco | Arr. ab't Apr. |
| TRINIDADIAN | Port Arthur | Tampico | 200 m. S. Sabi Bar April 4 |
| TRITON | Rotterdam | Baton Rouge | Off Wight Mar. |
| TROCAS △ | Singapore | Soesoe | L. April 9 |
| TURBO △ | Tyne | Shanghai | Arr. April 9 |
| UNCAS | San Francisco | Shanghai | Arr. ab't April |
| VEDRA | Antwerp | Tyne | Arr. April 9. port April |
| VILLE DE DIEPPE (Norwegian Barque) | Philadelphia | La Pallice | Arr. Mar. 17. port Mar. 20 |
| VITRUVIA | Novorossisk | Rotterdam | L. April 12 |
| VOLCANUS △ | Bangkok | Balek Pappan | L. April 6 |
| VOLUTE △ | Barrow | Tyne | Arr. April 1. port April |
| WABASHA | San Francisco | Moji | L. April 6 |
| WANETA | New Orleans | Tampico | 100 m. S.W. of S. Pass Light Ap. |
| WAPELLO | Liverpool | New York | Abeam Brow H April 11 |
| WASHINGTON | Philadelphia | Tuxpan | Cl. April 6 |
| WEEHAWKEN | London | Port Arthur | Pd. Sand Key ab't April 13 |
| WIELDRECHT | Abadan | Rotterdam | L. Suez April |
| WILLIAM F. HERRIN | — | — | T. Pac. Ct. N. Ame |
| WILLKOMMEN | Philadelphia | Malmo | Pd. Delaware Breakw'r Ap. |
| WINAMAC | San Francisco | Saigon | Arr. ab't Apr. |
| WOTAN | New York | Hamburg | Arr. April 2. port April 6 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**Cheaper Oil Prices.**

THE outlook for a continuance of the highly remunerative oil prices which have been prevailing for many months past is decidedly unfavourable; in fact, both at home and abroad there is to-day a distinct tendency for a decline. Pennsylvanian grades have led the way, and three reductions in the price during the past few days has brought quotations down from $2½ per barrel to $2.20. In Russia the markets are weak, and crude oil has dropped below 39 copecs per pood, while in both Galicia and Roumania there is the same prevailing tendency. On the London market there has been an all-round reduction in prices, and rumour has it that substantial decreases may take place at any moment. With the approach of the summer season, which brings with it a materially decreased consumption in illuminating oils, a diminution in quotations is generally anticipated, but in the present case the decline is rather due to the steadily increasing supplies and an improvement in ocean transport facilities.

◆

**More Water in Californian Wells.**

THAT serious menace—water—has made its ominous reappearance in many of the oil wells in the Californian fields, this time in the Coalinga district. It is evident, however, that the difficulty is not to be allowed to pass unnoticed, nor to spread over a larger area than that at present affected, without concerted action being taken to fight it. The Sunset-Midway operators who met with the same trouble some months ago are now engaged in a systematic and scientific method of preventing further damage to producing wells, and following on the same lines, the Coalinga operators are to take united action, for an organisation composed of the strongest concerns in the field has been formed, the duty of which shall be to use every effort in order to prevent the further loss of producing wells by water. It is pleasing to note that the new organisation will not be handicapped by want of funds like its predecessor has been, for it has the full support of the Standard, the Union, the Associated, the Shell and Royal Dutch and other important companies.

◆

**Mr. Winda and the Maikop Field.**

THE well-known geologist Mr. V. Winda delivered a lecture on the Maikop Oilfields a few days ago before the Mining Engineers Society, at St. Petersburg, when he corroborated the opinion expressed in our leading article of March 14th. Mr. Winda pointed out that the chief production in Maikop in 1912 was received by the Anglo-Maikop group from three claims Nos. 3, 16, and 202, the area of exploitation being equal to 12 dessiatines, or about 32 acres. On that area 77 wells have been in exploitation or 6·4 wells for every dessiatine, or 2·36 per acre, and the average daily production was 306 poods per well. For the same year the Balakhani field in the Baku district, where the average depth of the wells is three times that of the wells in Maikop, the average was 1·1 per well per acre, and the average daily production only 215 poods per well per day. These indisputable facts clearly point to the great productivity of the Maikop region. During last year, on the three claims mentioned in Maikop, there were in exploitation 122 wells, which represents practically four wells to the acre.

◆

**The Situation in Galicia.**

WITH a view to bringing about a better state of things in the Galician petroleum industry, two important meetings of producers have recently been held at Drohobycz and Boryslaw. As is known, the producing interests outside the Crude Oil Producers' Union represent practically the same strength as those in the Union, and it has long been regarded as hopeless to expect the Union to bring about an improvement in the Galician oil situation so long as so many producers remain outside its ranks. The general desire of the Union, therefore, has been that a concerted effort should be made to secure the adhesion of those who for various reasons have hitherto remained outside the organisation. The meetings were particularly successful, inasmuch as a large number of the outside producers agreed to give their full support to the Union, it being understood that they should not be compelelled to participate in the delivery of crude oil to the Government, which is one of the obligations of the Union. The result of the meetings has been that a healthier feeling now permeates the Galician oil industry, and it is the general opinion that the Union will henceforth be an organisation capable of far greater good to the industry than has hitherto been the case.

## ACTIVITY IN THE OIL SHARE MARKET.

The activity displayed during the past week or two among the oil share section of 'Change has been materially strengthened during the present week, substantial advances having been made in many of the leading securities. There has also been considerable buying of stock—an evidence that the public is again reverting to oil investments. Following upon the good news from Egypt, the shares of the various Anglo-Egyptian companies have been in good request at firmer rates, while other shares to join in the upward tendency have been several Maikop securities, Shells, Kern Rivers, Roumanian Consolidateds, etc. The Caucasian (Tchermoeff) Oilfields, Ltd., which went to public issue this week for £120,000, was over-subscribed.

◆

## THE SALE OF THE SCHIRVANSKI REFINERY.

We learn that the Schirvansky Refinery, owned by the Black Sea Oilfields, Ltd., has not been sold to Nobel Bros., as stated in the Russian Press, but has been acquired by the Maikop Refineries, Ltd., one of the companies associated with the Anglo-Maikop Corporation, Ltd. The consideration was £45,000, equally divided in cash and shares. On the shares last year a dividend of 30 per cent. was paid. The transaction places the Black Sea Oilfields, Ltd., in a most favourable position.

**LICENSEES WANTED TO OPERATE IMPORTANT PATENTS.**

Licensees are required in England to take up and operate the undermentioned Patents (granted in England).

**Patent No. 14390 of 1910,**

relating to an "Improved apparatus for distilling petroleum oils, tars, and the like under high vacuum"; and

**Patent No. 29145 of 1910,**

relating to "Improvements in distilling vessels."

*For descriptions of the above patents, drawings, and all other information apply to—*

**LEOPOLD SCHWEINBURG,**
**Mullnergasse 13, Vienna IX.**

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended April 18th was 116,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended April 19th was 282,790 poods, or about 4,561 tons. The total production for the year from January 14th to April 19th was 3,958,820 poods, or about 63,852 tons. The total production for the corresponding period last year was 4,024,730 poods, or about 64,915 tons. Price of crude oil at Baku is now 40 copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended April 18th was 21,563 poods, or 348 tons.

European Oilfields Corporation, Ltd. — The production for the week ended April 19th was 113,100 poods, or 1,824 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended April 18th was 122,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended April 18th was 20,070 poods (324 tons).

Maikop New Producers, Ltd.—Production for week ended April 18th was 7,010 poods (113 tons).

British Maikop Oil Company, Ltd.—Production for week ended April 19th was 10,762 poods, or 174 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended April 18th, 87,840 poods, or 1,417 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended April 21st was 434,893 poods, or 7,014 tons. Corresponding period last year, 1,944 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended April 19th was 86,667 poods, or 1,388 tons.

Maikop Midland.—Production at Krimskaya for week ended April 18th was 6,840 poods, or 110 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended April 18th was 19,787 poods (319 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended April 18th was 1,045 poods (17 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended April 18th was 2,410 poods, or 39 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended April 21st 207,100 poods, or 3,340 tons.

**GERHARD & HEY,**
**OILFIELDS SHIPPING AGENTS,**
**Great St. Thomas Apostle**
(Off Cannon Street),
ESTABLISHED 1856.
Telephone: City 8840 (4 lines).
**LONDON, E.C.**

# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production week ended 18th instant, 137 tons.

**United British of Trinidad.**—Production week ended April 17th, 660 tons.

**Oilfields of Mexico, Ltd.**—Production last week 2,650 barrels (378 tons).

**Anglo-Egyptian Oilfields, Ltd.**—Telegram from Gemsah (April 22nd) advises:—Saved production of well No. 13, last two days, 1,709 and 1,604 tons.

**Traian Roumanian Petroleum Company, Ltd.**—Production of crude oil for week ending 18th inst., 470 tons.

**Lagunitos Oil.**—Production (first half of April), 1,550 tons. Wells drilling—No. 105, 903 ft.; No. 106, 705 ft; No. 107, 150 ft.; No. 108, 20 ft. Finished—No. 100, 915 ft.; No. 101, 1,610 ft.; No. 102, 1,890 ft.

**Roumanian Consolidated Petroleum Company, Ltd.**—Production week ended April 18th, 1,745 tons, including 1,290 tons pumped into the tanks from well No. 30. Other Moreni wells have been baled only intermittently during week, all available labour having been drafted to No. 30 for the construction of additional dams and reservoirs.

**New Caucasian Oilfields, Ltd.**—Cable from manager:—Well No. 1 on plot 1 will commence boring next week. Well No. 2 on plot 2, depth 17 sagens. April 17th: Mr. Speranski, a director of the New Caucasian Oilfields, who is at present in Grosny, cables that he has inspected the works of the company and that drilling has started in second borehole, which is now 14 sagens 3 ft. (101 ft.) deep.

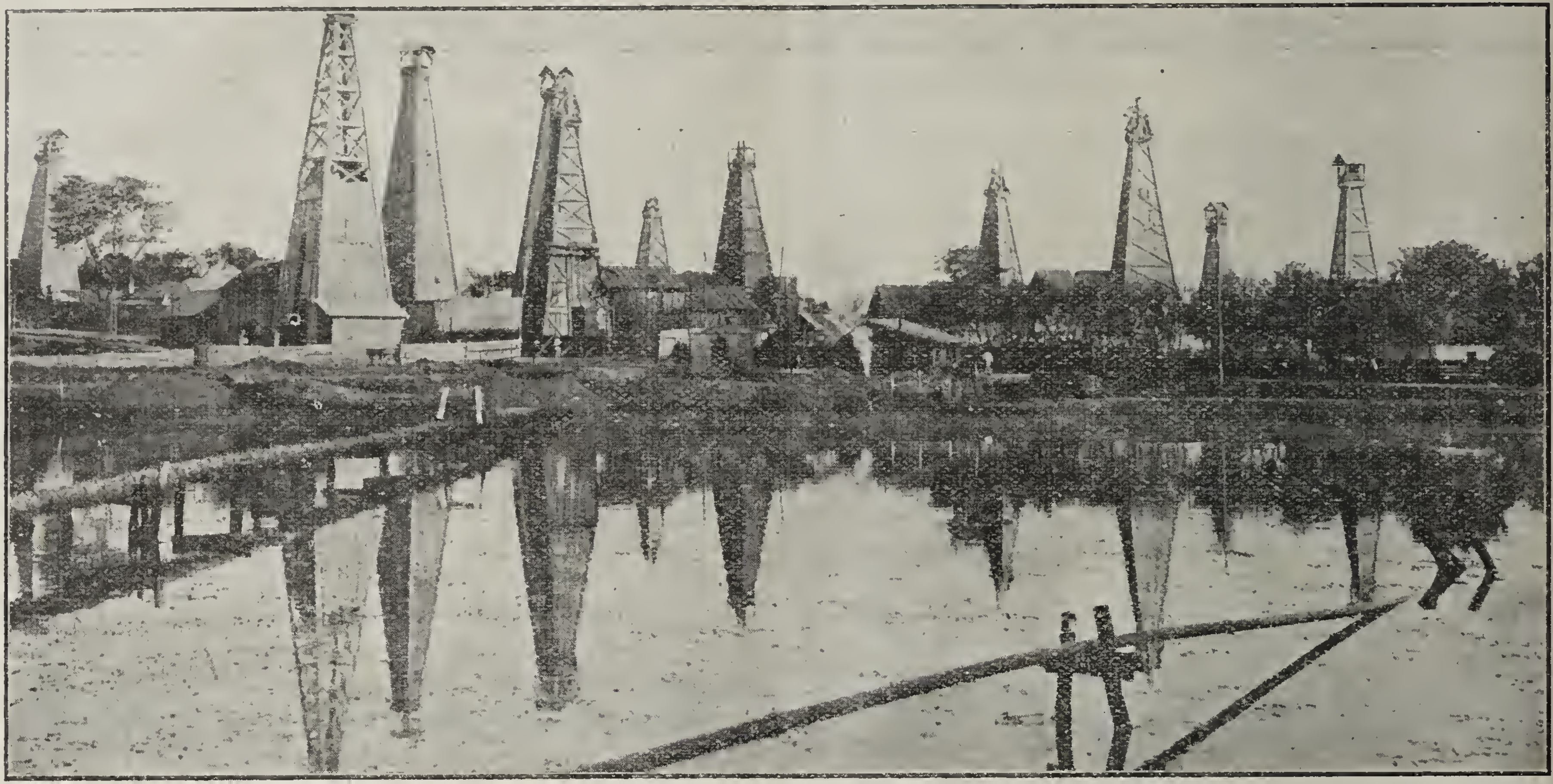
**Trinidad Leaseholds, Ltd.**—A cable from manager in Trinidad, dated 20th instant, states that well No. 1 on the Forest Reserve property had drilled into oil sand at 100 ft. (presumably upper layer Forest sand). Field manager estimates yield at the rate of 20 barrels per day, and some oil is being baled. Geologists anticipate second layer sands will be reached 150 to 200ft. deeper, and did not expect yield from upper sand. Sinking is being continued.

**Kern River Oilfields of California, Ltd.**—Management committee of St. Helen's Petroleum Company, Ltd., report as follows:—Santa Maria, well No. 1—Depth 4,300 ft.; formation, brown shale. King Lease—Production wells Nos. 1, 2, and 3, 620 barrels. Midway-King Lease, well No. 5—Production Sunday estimated at 1,200 barrels per day; Monday, 630 barrels; Tuesday, 512 barrels. Midway-King Lease, well No. 6—Depth 2,050 ft.; increase 70 ft. McLeod Lease—Flowing 934 barrels per day. Fullerton-Anaheim, well No. 1—Deepening well. No change. Fullerton-Anaheim well No. 2—Baling and flowing. Looking very good. Fullerton-Anaheim, well No. 3—Flowing 486 barrels per day. Fullerton-Anderson, well No. 1—Depth 2,600 ft.; increase 475 ft. Fullerton-Johnson, well No. 1—Depth 810 ft.; increase 520 ft. A later cable announces the bringing in of the No. 2 well with a yield of 1,000 barrels per day.

# SUPPLEMENTARY LIST OF OIL SECURITIES.

| Company. | Friday's Prices. |
|---|---|
| Algerian (£1) | 1/6 |
| Anglo-Persian Preference (£1) | 21/6–22/6 |
| Anglo-Terek (£1) | 0–$\frac{1}{8}$ |
| Baku (10/– Shares) | 59/–6/3 |
| Batavia (£1) | 19/6–20/6 |
| Black Sea Ordinary (£1) | 5/6 |
| ,, Preference (£1) | 7/6 |
| British Borneo Petroleum Syndicate (10/-) | $\frac{9}{16}$ |
| British Burmah Petroleum (£1) | 5/0–5/6 |
| British Maikop (2/–) | 1/0–1/3 |
| California (£1) | $5\frac{3}{4}$–$6\frac{1}{4}$ |
| California Petroleum Preference ($100) | 60-65 |
| Cheleken (£1) | $1\frac{19}{32}$–$\frac{21}{32}$ |
| Chijoles (£1) | 1–$\frac{1}{8}$ |
| Constantine (10/-) | $\frac{5}{16}$–$\frac{7}{16}$ |
| Copan Oilfields | 3/9–4/9 |
| Cyprus Oil Trust (2/–) | 2/0–2/6 |
| Eagle Transport Preference (£5) | $5\frac{1}{8}$ |
| Egyptian Oil Trust "A" (£1) | 5 |
| Emba Caspian (£1) | $\frac{11}{16}$ |
| Galician Oil Trust (10/–) | 3/6–4/0 |
| Hungarian National (£1) | $\frac{1}{2}$–$\frac{5}{8}$ |
| International Russian (5/–) | 1/0–1/3 |
| Kansas-Oklahoma (£1) | $\frac{11}{16}$–$\frac{13}{16}$ |
| Kazan Oilfields (£1) | 1–$1\frac{1}{8}$ |
| Kern River (10/–) | 8/6 |
| Lagunitos (£1) | 3/3–4/3 |
| London Oil Syndicate (£1) | $\frac{7}{8}$–$1\frac{1}{8}$ |
| Maikop Premier (£1) | 15/6 |
| Maikop Pipe Line (£1) | 3/6–4/0 |
| Maikop Spies (10/– Shares) | 1/6–2/0 |
| Mexican Eagle Common ($10) | 2 |
| Mexican Eagle Preferred ($10) | $1\frac{27}{32}$ |
| Mexican Petroleum 6 per cent. Bonds | 95-100 |
| New Caucasian (10/–) | 16/0–16,6 |
| New Oil Properties (£1) | $\frac{7}{8}$–1 |
| Oil Development Trust (2/–) | 1/0–1/6 |
| Oil Shale Development (5/–) | 4/0 |
| Oilfields of Mexico (£1. 0s. 10d.) | $\frac{1}{8}$–$\frac{1}{4}$ |
| ,, ,, Preference | $\frac{1}{2}$–$\frac{3}{4}$ |
| Oklahoma (£1) | 17/0–18/0 |
| Pacific Petroleum (£1) | 22/6–23/6 |
| Premier Oil and Pipe Line (£1) | 5/$1\frac{1}{2}$–5/$7\frac{1}{2}$ |
| Ratoczyn (£1) | $2\frac{7}{16}$–$\frac{9}{16}$ |
| Red Sea Oilfields (£1) | $1\frac{1}{2}$–$1\frac{5}{8}$ |
| Russian General Oil Corporation (£1) | $1\frac{1}{2}$ |
| Santa Maria of California Ordinary (£1) | 17/0–18/0 |
| ,, ,, Preferred (£1) | $1\frac{5}{32}$–$\frac{7}{32}$ |
| South Caucasian (£1) | $1\frac{3}{8}$–$\frac{5}{8}$ |
| Suez (£1) | 8/3-8/9 |
| Suvoroff Taman Oilfields (£1) | 16/0-16/6 |
| Tampico-Panuco (5/–) | 8/0 |
| Traian (Roumanian) (£1) | $\frac{3}{4}$–$\frac{7}{8}$ |
| Trinidad (£1) | $\frac{11}{16}$–$\frac{13}{16}$ |
| Ural Caspian (£1) | $2\frac{3}{4}$ |
| Venezuelan Oil Concessions (£1), 15/- paid | $2\frac{17}{32}$–$\frac{21}{32}$ |
| West Ural (£1) | $\frac{3}{8}$–$\frac{1}{2}$ |

# A GROUP OF WELLS OF THE STEAUA-ROMANA.



THE above illustration shows a corner of the Steaua-Romana's property in the Campina field, which at the present time is being energetically developed on account of the excellent results which have so far been met with.

## THE BRITISH AUSTRALIAN OIL COMPANY.

### Distillation of Shale Commenced.

THE directors of the British Australian Oil Company Ltd., announce that on March 9th the first bench of retorts was fired, and the distillation of shale has since that date been continuous. The parts required to repair the damage caused by the cyclone, although ordered and shipped at the earliest moment, did not reach Sydney until the middle of March. This caused considerable delay in the completion of the second bench of retorts, which, from cable advices just received, will be put into operation at the beginning of May. The sales department has been thoroughly organised, and the company has now an experienced staff of oil salesmen. They are actively engaged in making contracts for the disposal of the company's products, and the board report that a considerable amount has already been sold forward at satisfactory prices. No difficulty is anticipated in disposing of the whole of the company's output. The development of the mine has been pushed on rapidly, and the main heading and the right hand back front heading have passed through the fault which was encountered by the old company. The latest reports show that a seam of shale of 4½ to 5 ft. thick, lying evenly between the best roof and floor ever found in the workings of Temi, has been encountered. This seam lies almost level, and can be mined with the utmost ease. Recent advices show that there is export shale in all the working faces to the north of the trouble passed through, not only in the main mine itself, but also in the cross-cut driven from the old workings through the fault. The mine workings have been opened out sufficiently to enable the output to be raised to 300 tons per day.

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## THE UNREST IN MEXICO.

### Protection of the Oilfields.

THE question of the protection of the oilfields in Mexico was mentioned in the House of Commons on Tuesday, when Mr. Douglas Hall asked the Secretary of State for Foreign Affairs whether any representations had been made to the Foreign Office with regard to the safety of certain oilfields in Mexico in which British capital was invested; and whether, as the result of those representations, other representations were made by the British Government to the United States Government, with the result that warships of the latter Government were sent to the disturbed area, and the oilfields in question protected from the Mexican rebels.

Mr. Acland: With regard to the action of His Majesty's Government for the protection of British oil interests at Tampico, I refer the hon. member to an answer given to Sir John Rees on the 14th. The dispatch of United States warships at Tampico was, so far as I am aware, quite independent of the representations made by His Majesty's Government to the United States Government.

◆

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# THE PETROLEUM IMPORT TRADE OF FRANCE.

## DETAILS OF REGULATIONS.

The imports of petroleum products into France are effected by installations at maritime ports designed by the French customs, and amongst these the most important are Rouen, Cette, and La Pallice.

The unloading of steamers in the above ports is regulated by the law of June 18th, 1870, and a series of decrees and local orders which render the operations more or less difficult, and which are not always in accordance with the real necessities of the trade and the properties of the products, such as inflammability, etc.

On the basis of a ministerial circular issued on November 10th. 1910, the governors of the provinces in which the petroleum ports are situated have issued a circular, from which we give the following extracts :—

Rouen.—This port is situated on the Seine, and the regulation concerning it, promulgated on January 9th, 911, is as follows :—

Small vessels carrying less than 100 tons of petroleum are not restricted by any special regulation outside the general rules regulating the interior navigation. The only restriction is that they must be provided with cables and chains, and be capable of being isolated in cases of necessity. The time allotted for unloading must not exceed 24 hours. During unloading the presence of a upervisor as regards open fires, etc., is necessary. The presence of such a person is also necessary while the vessel goes up or down the Seine.

In the case of tank steamers of large tonnage which nter Rouen for the purpose of unloading large cargoes, he steam necessary for acting the pumps and other machinery has to be provided from places situated at distance of at least 50 metres from the shore, and as oon as the tanker has reached the jetty all fires abroad must be extinguished, and no fires whatever are allowed during the operation of unloading.

These measures are very embarrassing in winter, when he pumps are usually in a bad state, and light and heat has to be provided for the cabins, and when it is very difficult to bring aboard the enormous quantity of steam at the necessary high pressure. On many occasions it has been ascertained that 8,000 to 9,000 kilos of steam per hour are necessary, while the shore installation annot supply more than 2,000. As regards light, this is supplied from the shore by means of powerful arc amps.

In case of a mixed cargo, all other goods have to be discharged after the petroleum products have been discharged. After the discharging of the cargo, the maximum time allowed the steamer to leave the jetty is hree hours, and in case the steamer has to remain for ome time in port, the tanks must be filled with water. Should any repairs have to be made in port, the tanks each have to be steamed out for at least six hours, then ventilated for 24 hours, and afterwards washed with water, after which they have to be examined by an expert hemist, who has to deliver a certificate for the purpose.

Cette.—This port, situated on the Mediterranean, has a special port for petroleum, with a jetty on which reservoirs are erected. Local regulations concerning the discharge of petroleum in this port were until recently exceedingly severe, and no discharge was allowed at night time, and no fires whatever, aboard or on shore, were allowed after sunset and before sunrise. The fires aboard the steamers must be extinguished as soon as the tanker has entered the port, and cannot be re-lit before the full completion of all operations. All other regulations are similar to those prevailing at Rouen. At present the discharge is authorised during any time, but on the condition that lighting should be supplied by electric lamps provided with guards against sparks, and fed with current from the shore. The time of unloading is regulated so that not less than 180 tons a day should be discharged. No more than one tanker can be discharged at the same time, and in case several steamers arrive at the port, they must stay outside in the road, isolated from other steamers, and with all their tanks tightly closed. As soon as the discharge is completed, the steamers must at once leave the port and re-light their fires, but not until they are 50 metres from the other steamers. The cargo in bulk has to be discharged into special reservoirs erected on the jetty, which are surrounded with walls of at least 2·50 metres high. Each reservoir is approached by means of an iron door, the key of which is kept by the customs officials. The reservoirs must be emptied of the cargo within eight days.

La Pallice.—This port is situated on the Atlantic, and the reservoirs for receiving the cargo are placed at a distance of 1,500 metres from the jetty. In this port the regulation allows the steamers to work by means of their own steam and to have fires and lights of their own, but all aboard cannot go ashore until after the discharge is completed, and during the discharge constant and strict supervision is kept by two firemen, who must not allow any fires outside the authorised places, and at the same time must not allow any persons to go on the steamer.

Transport of Petroleum Products into the Interior of France.—The transport of petroleum products from the refineries or the large centres into the interior of the country is usually made by rail, in closed wagons, in barrels of 80 litres each, in iron drums of 50 litres, and in small tin drums of 5 litres each, which latter are grouped ten in each case. Occasionally these are allowed to be transported in barges on the interior canals, but usually transport by water is in bulk and in tankers. The tonnage and construction of these tankers vary according to the canals in which they navigate. In any case it does not exceed 3,000 to 4,000 tons. Usually these are barges in which there are one or several tanks. A system of pipelines allow the discharge by means of pumps placed on shore. These barges are usually drawn by tugs or by horses. As a rule, the circulation of the products into the interior of the country along rivers and canals is free of drastic regulations in France.

# MISCELLANEA.

## THE WORLD'S GREATEST OIL WELL.

### The "Shell" Subsidiary Company's Well in Mexico is Capable of Producing 180,000 Barrels Daily.

The remarkable records which have been established in Mexico by the Potrero del Llano and other famous wells belonging to the Mexican Eagle and its associated concerns have evidently to take a second place to the well owned by the Corona Oil Company, which was brought into production in the early part of the present year.

This well is situated in the Panuco district, near Tampico, and the producing strata was encountered at a depth of 1,810 feet, the crude oil being of a grade suitable for refining purposes. At the time the well was completed it yielded, according to the official statement, nearly 20,000 barrels daily, but its flow rapidly increased until over 30,000 barrels daily was recorded. The gas pressure continued to increase with the greater flow, until there were fears that the well would become of a wild character. It was, in fact, capped with difficulty. Recently the cap was removed for the purpose of officially testing the output of the well, and during the period the delivery pipe was open the well registered a flow at the rate of 180,000 barrels daily. The well can therefore safely be described as the world's greatest oil well. It is reported that the Corona Company intends to erect a large oil refinery, but apart from refining some of its crude oil, the company will export large quantities of fuel oil to the markets of the world.

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## THE PETROLEUM TRADE OF BATOUM.

### Statistics for January.

The total imports of petroleum products into Batoum during January amounted to 4,071,174 poods, total exports abroad to 3,893,944 poods, and the total exports inland to 686,112 poods. The following table shows the details of the imports to and exports from Batoum during January, as well as the quantities in store on February 1st:—

| | Imports. | Exports. | | In store |
|---|---|---|---|---|
| | Imports. Poods. | Abroad. Poods. | Inland. Poods. | on Feb. 1st. Poods. |
| Kerosene ... ... | 2,651,991 | 2,967,876 | 651,733 | 2,374,143 |
| Lubricating oil ... | 942,098 | 726,409 | 28,060 | 2,587,943 |
| Residuals ... ... | 393,538 | 182,766 | — | 570,013 |
| Crude oil ... ... | 83,547 | — | 5,831 | — |
| Other products ... | — | 16,893 | 488 | — |
| Totals ... | 4,071,174 | 3,893,944 | 686,112 | 5,532,099 |

◆

## FOREIGN STEEL COMPLAINTS.

Complaints are being made, says the *Engineer*, concerning the character of some of the finished steel that is coming forward from Germany. A case in particular is mentioned where 4,000 tons of tube strip, which has been bought by one of the largest firms in the wrought iron and steel tube trade, is proving very unsatisfactory. The material, which is either basic or acid open-hearth steel, will not, it is found, stand the necessary re-heating prior to rolling down, and the tubes burst in the mills. The waste, consequent upon this state of things, robs the contract of all advantage, although it is understood that is was entered into on very favourable terms. Although the experience of German steel here detailed has, of course, been very disappointing to the tube firm concerned, yet certain South Staffordshire steel strip rollers are not grumbling, since, after having been almost idle for some time, they are now again receiving welcome orders.

◆

## AN IMPORTANT NEW CALIFORNIAN COMPANY.

The Pacific Crude Oil Company is the title of the latest new company to operate in the Californian fields. It is backed by Philadelphia-New York capitalists and is incorporated under the laws of Delaware with an authorised capitalisation of $11,000,000. Mr. W. W. Orcutt, the chief geologist of the Union Oil Company, has been retained as consulting engineer to report upon various properties to be purchased, and to locate the sites of the wells to be drilled in the Ventura and other Californian fields. The Company's main offices will be at Los Angeles, and it is anticipated that several well-known Californian oil-men will have seats on the directorate.

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## TAMPICO—AN IMPORTANT OIL REFINING CENTRE.

Tampico is rapidly becoming one of the largest oil refining centres in the world. Apart from the large refineries of the Waters-Pierce Company and the Aguila Company (Mexican Eagle Oil Company), the refineries being now built for the Huasteca Petroleum Company and the Standard Oil Company will be completed and in working order before the end of the present year. Then the Texas Company, which is becoming a large operator in Mexican oil, is shortly to commence the construction of a refining plant at Tampico, while it is persistently rumoured that the Corona Company—the Mexican branch of the "Shell" Royal Dutch Combine—will also commence the erection of a large refinery without delay.

DR. T. O. BOSWORTH,
D.Sc. (London), M.A. (Cambridge), F.G.S.
*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*
**Consulting Geologist.**
*(Formerly of His Majesty's Geological Survey.)*
Office: 12, St. Giles Street.
Northampton.

# THE OIL INDUSTRY OF MEXICO. An Historical Sketch.

By Mr. E. DE GOLYER.

(*Concluded from page* 440.)

With the beginning of the present century, operations on a larger scale were commenced, and the first serious attempts to produce petroleum in Mexico followed. In 1900, various Mexican citizens contracted the Hacienda Sabaneta, Tulapilla and Comalteco in the State of Vera Cruz. These leases were transferred to the Mexican Petroleum and Liquid Fuel Company, Ltd., a company in which Cecil Rhodes, of South Africa diamond fame, was interested, and in the following two years, 24 wells were drilled by them. All of these wells were unsuccessful, though several of them attained depths greater than 1,500 ft. Messrs. Doheny & Canfield purchased land in the State of San Luis Potosi, near Tampico, and in May, 1901, drilling was commenced at Ebano. A small amount of oil was struck at a depth of 425 ft. by the first well, but production at a commercial profit did not commence until 1904. This, however, was the beginning of the first successful venture in Mexican oil. During 1901 and 1902, stimulated perhaps by the discovery of the Spindletop field in Texas, numerous shallow wells were drilled in Mexico. A well was drilled at Tamelul, near Tempoal, by the Cia. La Peregrina. The Cia. de Petroleoy Carbonifora S. A. drilled a well at Tanute, near the town of Aquismon. Several wells were drilled in Guadalipe in the valley of Mexico, and exploration work was carried on by Señores de la Barra and Bringas in the Pichucalco district of Chiapas. Further wells were also drilled in the Haciendas de Chapopote and CerreViejo, and the Pearson interests in the latter year commenced operations in the Isthmus of Tehuantepec. About this time the Pan-American and various other asphalt companies leased lands, and made an attempt to exploit the surface deposits of chapopote in the Cantons of Tuxpan and Ozuluama. These attempts were only partially successful, however, the product reaching its highest point in the years of 1900 and 1901, when asphalt exported from Mexico reached the quantity of 627 and 634 tons respectively. In 1903 the Mexican Petroleum Company introduced the first oil-burning locomotive in Mexico, the same being used on their Ebano property. A few shallow wells were drilled on the Tamesi river near the Los Sateros property during the same year.

*Bringing in Successful Wells.*—In 1904, drilling was commenced by the Oil Fields of Mexico Company at Furbero, and in the same year their first well was brought in successfully. Pez No. 1, the first large well on Ebano, was also brought in and has flowed continually since. This established the Ebano field as a commercial proposition and as the most important field in Mexico, a position which it occupied until 1910. In this connection, it is of interest to note that the most valuable statistics we have with regard to the life of an oil well in Mexico is the production of this Ebano well. From April 3rd, 1904, to April 12th, 1912, a period of nine years, this well had produced 3,450,123 barrels of oil, and was reported to be making on the latter date about 300 to 1,000 barrels of oil. In 1905, the Pearson interests brought in the San Cristobal field, the first of the successful fields on the Isthmus. Wells were drilled by the Mexican Oil Corporation on the Hacienda Cerro Viejo, and during the following year several wells were drilled near C. P. Diaz in the State of Coahuila.

*The Pearson Refinery.*—In 1907, drilling operations were commenced at various places in the Cantons of Tuxpam and Ozuluama. Drilling was started at San Diego by the Pennsylvania Oil Company, at Tumbadero by the Pearson interests, and at Juan Cassiana and Tres Hermancs by the Huasteca Petroleum Company A Mexican bank drilled four shallow wells near the Tampalache seepage in the Panuco field. Operations were also commenced at Los Esteros, in the State of Tamaulipas. In 1908, the Pearson refinery at Minatitlan commenced operations, and in May of the same year San Diego No. 2, the discovery well of the Dos Bocas field, came in with a production of 2,500 barrels. On July 4th, the famous San Diego No. 3, generally conceded to have been the world's largest oil well, was brought in, catching fire immediately, and burning until extinguished by the encroaching salt water. Drilling was commenced at Caracol and on the Tamesi river by the Tamesi Asphalt and Petroleum Company, and at Tuxpam by the East Coast Oil Company. In 1909, the Huasteca Petroleum Company brought in Juan Casiana wells Nos. 1 and 2, and the construction of a pipeline to Tampico was commenced. During this same year operations were commenced at Potrero del Llano, Topila, Mendez, and various other points, and a company in which William Randolph Hearst was interested, drilled several wells in the State of Chihuahua. The Mexican Petroleum Company brought in its Chijol field in the Ebano district, and the Mexican Fuel Company (Waters-Pierce) brought in the discovery well of the Topila field.

*Important Results in* 1910.—The year 1910 was, without doubt, one of the most notable importance in the development of the Mexican oil industry. Drilling was commenced by the Aguila Company at Tanhuijo on January 24th, and three days later the No. 1 well came in good for 80 barrels at a depth of 115 ft. This is the shallowest well in Mexico. On February 5th, Potrero del Llano No. 1, the discovery well of the field of the same name, was brought in, and shortly afterward the construction of a pipeline to a point on the Tancochin river and from Llano de Bustos to Tampico was commenced. The pipeline from Furbero to the Bar of Tuxpan having been completed, deliveries from that field began in April. Oil was loaded into ships lying in the open roadstead at a distance of one to two-kilometres from the shore, being pumped through submarine lines and received on the ships through flexible hose attached to the end of the pipelines. This was the inauguration of the Aguila Company's Tuxpan Bar loading station which has since been so successful, at times loading more oil per month than the port of Tampico. The Aguila Company also brought in its first wells in the San Pedro field, and the East Coast Oil Company commenced drilling at Topila and Panuco. With its Tampico pipeline nearing completion, and the production of Casiana wells Nos. 1 and 2 having dropped to a small amount, on July 26th the Huasteca Petroleum Company brought in Casiana No. 6. This well produced 150,000 barrels of oil in 15 days, increasing from 8,000 barrels on the first day to 14,000 on the last, and has since been closed in. On September 11th, Casiana well No. 7 was brought in. This well has probably produced more oil than any other well in the world, the total of its production up to the present time being approximately 27,000,000 barrels. On the same date the East Coast Oil Company brought in its Panuco No. 1, the discovery well of the Panuco field. The Aguila Company, having almost completed its pipeline for transportation to Tampico, on the morning of December 27th brought in the famous Potrero del Llano No. 4, one of the largest of wells. After flowing for approximately 60 days, with a production of 100,000 to 110,000 barrels per day, this well was successfully capped. Its total production up to the present time is approximately 25,000,030 barrels of oil.

*Exporting the Crude Product.*—In 1911, the first exportations of crude petroleum were made fromTampico, the oil going to the United States. During the same year drilling was started at various places near Tampico and Tuxpan by numerous other companies, and pipeline was constructed from the Potrero field to the Tuxpan Bar station. The most important field development of this year was the completion on April 26th by the East Coast Oil Company of their Topila No. 2, the most productive well in the Topila field. Ixhuatlan No. 1, discovery well in the important field of the same name on the Isthmus of Tehuantepec, was brought in by the Aguila Company.

In 1912, the Tampico Oil, Ltd., brought in the first important well in the Chila Salinas field, and the Vera Cruz Mexican Oil Syndicate marketed the first oil from the same field. Almost 7,000,000 barrels of petroleum were exported from Mexico during this year. The Petroleum Transport Company, a Huasteca subsidiary, commenced construction of a fleet of tankers to handle Mexican crude, and the Eagle Transport Company began bringing out their large fleet.

In July, 1912, the Government put into effect a tax of 20 centavos per ton on all petroleum produced in the Republic. During the latter part of the year salt water appeared in the Topila field.

*Activity and Progress Last Year.*—In 1913, the year which has just closed, the industry received another very marked impetus. During the early part of the year, the Penn Mex Fuel Company brought in the important Alamo field, and commenced surveys for pipeline to Tuxpan Bar. The Aguila Company brought in the discovery well of the Los Naranjos field, and numerous important completions were made in the Panuco field. Toward the end of the year the Mexican Oil Company, in which some local capital was interested, brought in what promised to be a very big well in the Topila field, and as a result of this successful operation, and subsequent big wells in the Panuco field, some 30 or 40 companies have been formed, most of them with Mexican capital. The Chila Salinas field suffered severely from the invasion of salt water. On December 1st, the Government increased the production tax on petroleum from 20 centavos to 75 centavos per ton, besides increasing numerous duties affecting the petroleum industry very greatly. A bill was proposed in the Chamber of Deputies for the nationalisation of the petroleum industry, but no decisive action was taken.

Though the present year is still young it has been of marked importance. Just after the first of the year the Spellacy interests brought in a 1,000-barrel well in the Panuco field, and a rapid succession of big wells has followed at that place. The Corona Petroleum Company brought in a gusher which promises to be one of the biggest of Mexican wells and shortly after, the Freeport Mexican and National Oil Companies brought in two large wells.

The present year should see a further development in transportation facilities, and consequently a large increase in production over the year just passed.

*Statistics of Results.*—No history of any oil industry can be complete without a résumé in the most concrete form possible of the results secured. Such a résumé of the petroleum industry is expressed perhaps much better in a statement of the amount of oil produced than in any other manner. The best available statement of the production of petroleum in Mexico is as follows :—

| | Barrels. |
|---|---|
| 1904 .. .. .. .. .. | 200,000 |
| 1905 .. .. .. .. .. | 300,000 |
| 1906 .. .. .. .. .. | 500,000 |
| 1907 .. .. .. .. .. | 1,000,000 |
| 1908 .. .. .. .. .. | 3,481,410 |
| 1909 .. .. .. .. .. | 2,765,742 |
| 1910 .. .. .. .. .. | 4,099,632 |
| 1911 .. .. .. .. .. | 13,655,488 |
| 1912 .. .. .. .. .. | 16,844,066 |
| 1913 .. .. .. .. .. | 24,174,929 |

During the year passed, 167,626,904 gallons of crude oil were exported from Mexico. At the present time Mexico is third in importance among the nations of the world in the amount of petroleum produced, being surpassed only by the United States and Russia. During the year just passed, Mexico produced slightly more than 6 per cent. of the world's production and increased its own production over that of the preceding year by about 33 per cent. With the completion of various transportation systems now under construction, the production of Mexico during the coming year should be between 30 and 40 million barrels, and in 1915 or 1916 she should become second in importance with regard to the amount of petroleum produced, and consequently outrank Russia, whose production is declining. Since 1910, the amount of production has depended altogether upon available means for transportation as the production of which each developed field is capable is far in excess of the amount which could be handled by existing transportation schemes. This is true at the present time, and transportation will probably remain the controlling factor for some years to come.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 12/0-13/0 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 21/6-22/6 |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/6-6/0 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-6/6 |
| European Oilfields ... ... | 319,181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. .. | 400,000 | £1 | 32/9-33/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 45/0-45/6 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{15}{16}$-1$\frac{1}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 25/6-26/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/7$\frac{1}{2}$-5/1$\frac{1}{2}$ |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{3}{16}$-1$\frac{5}{16}$ |
| " " Ord... | 690,000 | fully pd. | 13/0-14/0 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5$\frac{1}{8}$-5$\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{2}$-10$\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 24/9-25/3 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 700 | 702 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 3,200 | 3,400 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 255 | 257 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,350 | 19,450 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,002 | 1,004 |
| Russian Naphtha Society ... ... | 100 | 219 | 221 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 215 | 217 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

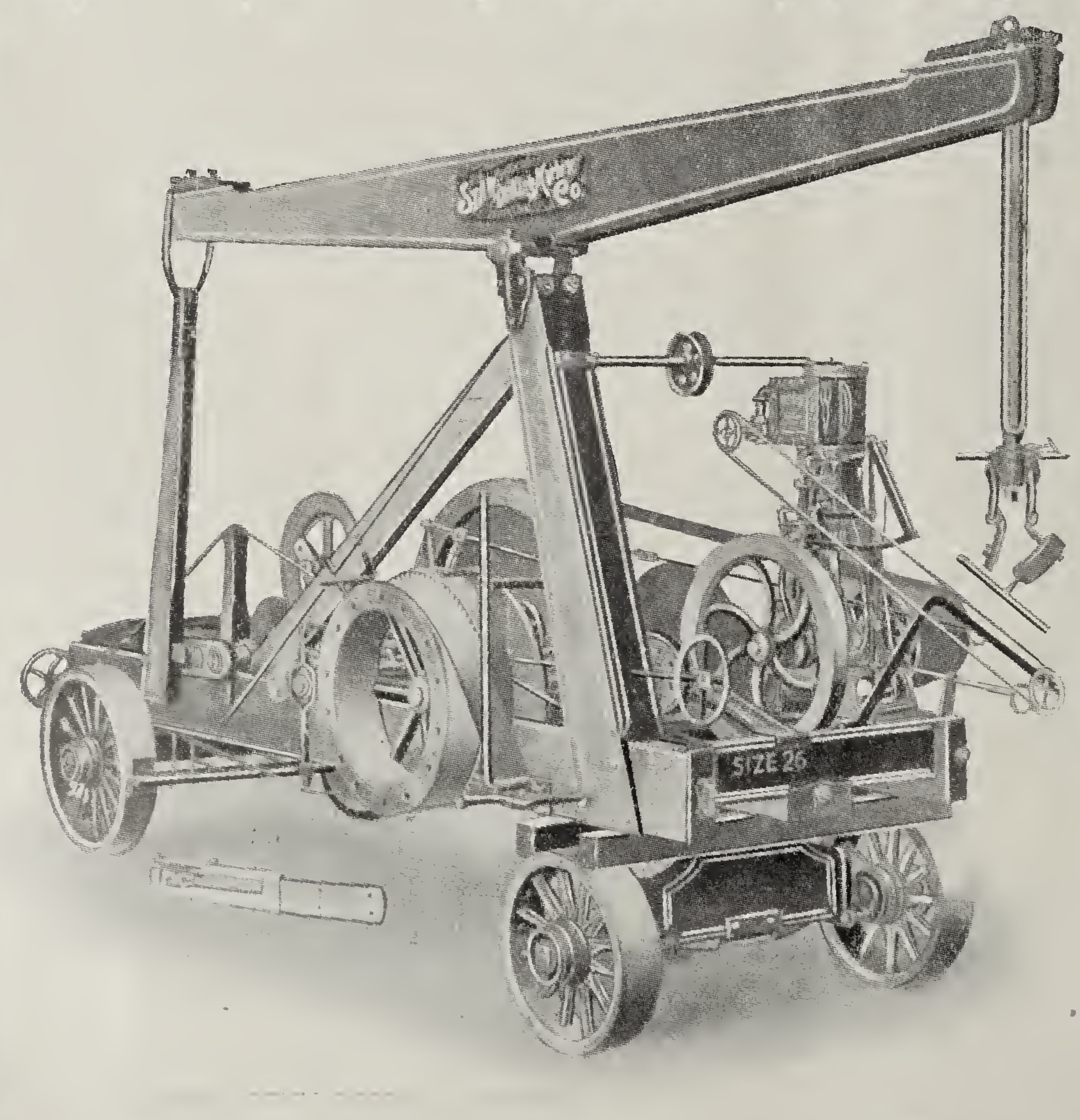
## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 30/3 |
| " 6% Cum. Pref. | 100,000 | £10 | 11$\frac{1}{4}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 92/0 |
| " Pref. ... ... ... | 250,000 | £1 | 27/9 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 36/3 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 30/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/7$\frac{1}{2}$ |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 91/9 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 14/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 58/6 |
| " "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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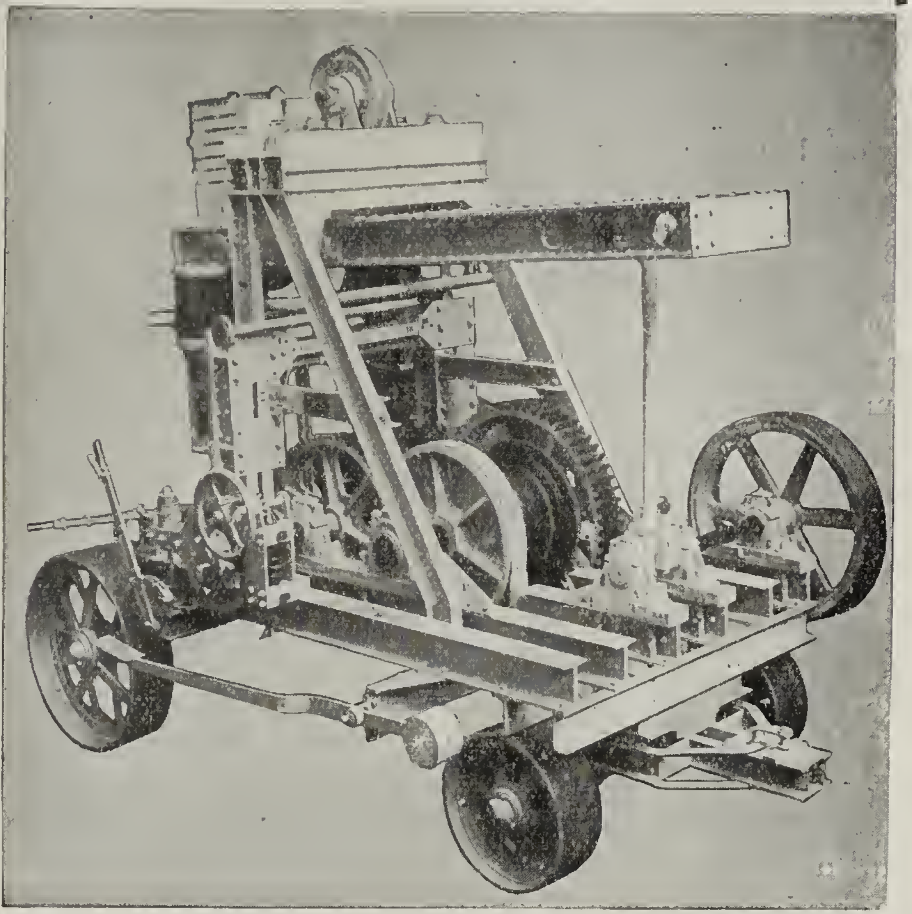

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PETROLEUM REVIEW,

*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, APRIL 25TH, 1914.

## MEXICO AND THE SUGGESTED GOVERNMENT OIL MONOPOLY.

FOLLOWING in the wake of other governments, who, recognising the importance of the wealth of petroleum in their respective countries, now desire to secure full control of the oil industry as established therein, Mexico now seeks to establish a monopoly in the Republic by acquiring and operating all its oil lands.

The idea of allowing other brains and capital to exploit a scheme at first of doubtful character, and then, when its real value is proven, to use all means, governmental or otherwise, to prevent the honest reward of speculation to depart from the country, is not by any means new. It is a repetition of the old tale of the landowner who, as a councillor upon some rural authority, agitated for the making of a new roadway, knowing full well that if it were decided upon, it would of necessity have to be constructed through his own fields, and as a result compensation would flow into his coffers.

Years ago Mexico played an insignificant *rôle* as a producer of petroleum. Its wealth in this respect was well known, but no one—and least of all the Government—had the courage to put up huge sums of money for the development of its petroleum riches. And we doubt if the position would have been greatly altered to this day had not Lord Cowdray come forward, and with that spirit of enterprise which has characterised so many of his commercial activities, secured extensive acreage of lands upon which an energetic drilling programme for oil was commenced. The Pearson interests were not the first to search for oil in the Mexican Republic. Others had come before, spent sums of money, and, in fact, struck oil ; yet, not being in the position to command the necessarily huge sums of capital required for development and transportation purposes, they one by one dropped out, and for a long time Mexico, with its enormous stores of liquid wealth, made no progress as an oil-producing country.

When Lord Cowdray's interests decided upon the establishment of an important branch of the petroleum industry in the Republic, there were many who predicted an early failure. But those who have followed the oil developments in Mexico during the past twelve years know with what energy they have been pushed forward in the face of great obstacles, until to-day not only is Mexico's petroleum industry firmly established, but it ranks among the most important in the world. The success achieved, great as it has been, is but a modest reward for the enterprise displayed, and no reasonably-minded person could raise any objection to the fact that the return upon invested capital should pass to those who have been the means of building up Mexico's already great industry of petroleum production.

The Mexican Government, however, evidently views matters in a strange light, for while welcoming—as it did some years ago—the advent of foreign capital to develop its petroleum industry, it strongly objects to th profits derived from the industry going abroad. It i this fact that has caused the Federal Government t take up for consideration the nationalisation of the oi lands. The plan of the Government is to form a nationa company, much on the same order as the Nationa Railways of Mexico, which is the Government-ownec system, and to take over by appraisement proceeding all of the oil lands and properties of private concern and individuals. The proposed Government compan is to have a capital of $300,000,000.

To our mind, however, the actual manner in whicl the Government is to proceed in order to carry ou its desires to secure a monopoly of the Republic' petroleum industry is of small account : the chie point which we would emphasise is that any action oı the part of the Government to take the petroleun industry from the hands of private enterprise will b little less than fatal to the best interests of the industry and should be strenuously opposed upon all hands.

Had the development of the Mexican petroleun industry been left to the Federal Government, Mexic to-day would have not figured in the list of oil producing countries : why then should the Government nov seek to benefit by the enterprise of others ?

◆

## THE STANDARD OIL COMPANY AND CHINA.

In the House of Commons this week Sir J. D. Ree asked the Secretary for Foreign Affairs whether th agreement between the Standard Oil Company and th Chinese Republic included the right to construct pipelines and railways, and a guarantee that the Republi should acquire and make over to the company all land needed for the development of its operations, an should exclude other foreigners for a year from oi concessions in China : and whether His Majesty' Government were taking any steps to benefit Britisl trade and British subjects in the opportunity affordec by the retirement of the United States from the loa consortium.

Mr. Acland : The answer to the first part of th question is in the affirmative. As regards the secon part of the question, the effect of the withdrawal o the American group from the Six-Power consortiu was that the American share of the loan was divide up among the remaining five Powers, whose positio remained otherwise unchanged.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO APRIL 20th, 1914.

[ALL RIGHTS RESERVED.]

IN GALLONS.

| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | From Jan. 1. | Since Apl. 13. | Fro Jan. |
| Belgium .. | — | — | 13,140 | 191,430 | — | — | — | — | — | 32,220 | — | — | — | 1,350 | 13,140 | 22 |
| Canada .. | — | — | — | 4,400 | — | 36,630 | — | — | — | — | — | — | — | — | — | 41 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 15,936,070 | — | 83,400 | 1,754,100 | 1,754,100 | 1,754,100 | 17,77 |
| Germany .. | — | 25,050 | 21,680 | 712,320 | — | — | — | — | — | — | — | — | — | — | 21,680 | 73 |
| Holland .. | — | — | 250 | 2,930 | — | — | — | 55,000 | — | 2,869,180 | — | — | — | 590 | 250 | 2,92 |
| Mexico .. | — | 2,242,970 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,332,310 | — | — | — | 5,34 |
| Roumania .. | 1,221,300 | 6,664,210 | — | — | — | 875,000 | — | — | — | 1,184,880 | — | 1,207,910 | — | — | 1,221,300 | 9,93 |
| Russia .. | 540,700 | 2,036,460 | — | 1,875,800 | — | — | — | — | — | 5,127,880 | — | — | — | — | 540,700 | 9,04 |
| U.S.A. .. | 2,280,240 | 30,859,000 | 903,890 | 14,530,880 | 20,000 | 77,990 | 1,054,000 | 22,772,930 | 1,320 | 2,601,730 | 721,390 | 3,199,680 | 13,380 | 210,310 | 4,994,220 | 74,24 |
| Other Countries | — | — | 500 | 125,290 | — | — | — | — | — | 210 | — | 4,150 | — | — | 500 | 12 |
| | 4,042,240 | 40,827,690 | 939,460 | 17,454,850 | 20,000 | 989,620 | 1,054,000 | 22,827,930 | 1,320 | 28,506,340 | 721,390 | 6,827,450 | 1,767,480 | 1,966,350 | 8,545,890 | 120,39 |

# AMERICAN AND ROUMANIAN NOTES.

## AMERICAN.

**A Record Shipment.**—The tanker "Jupiter" is now on a oyage from New York to Rotterdam with a cargo of 5,000,000 allons of refined petroleum, the largest single cargo of refined oil which has so far left New York.

**A Gusher in the Vinton Field.**—The Vinton field of Louisiana as produced another oil gusher, this being on the Vinton Petroeum Company's property. The new well is producing 13,000 arrels daily, and is situated in the vicinity of the large well of the Rescue Oil Company.

**The Magnolia Petroleum Company.** — It is officially nnounced that this company has purchased a large area of land at North Fort Worth for the site of an oil refinery and tank farm. The refinery, which will have a capacity of 20,000 barrels per day, will use oil from the Healdon field of Oklahoma.

**Wildcatting in Mexico.**—It is stated that wells are being sunk uite promiscuously in Mexican territory, many of the operations eing upon land which has been condemned by oil experts. The esults, however, have been eminently satisfactory, and numbers of arge producing wells have been brought in upon land which has een classed as being devoid of oil.

**Refinery Extensions in California.**—The promising outook for the Californian petroleum industry is reflected in the everal schemes for refinery extensions which are now on the tapis. Both the Standard and the Union Companies are to considerably nlarge their plants in the Kern River field, the capacity of the tandard plant being doubled. The Union Company is also reparing to enlarge its plant at Stewart station.

◆

## ROUMANIAN.

**Fire at Moreni-Tzuicani.**—Well No. 8P of the Romanamericana at Moreni-Tzuicani caught fire on the morning of pril 15th.

**Astra-Romana.** — The production of this company now verages 1,695 tons a day, of which 1,296 tons are obtained at tavropoleos.

**Steaua-Romana.**—The production of this company during the ast week oscillated between 940 and 1,051 tons a day. There were n regular eruption wells Nos. 160 Gahitza, 116 Bucea, 233 Chiciura, nd 99 Solontz.

**New Production.** — A new increase in the production is xpected, owing to the re-opening of the well No. 37 of the Astraomana and to the eruptive wells Nos. 33, 35, and 28 of the stra-Romana at Bana, and 8P of the Romana-Americana at zuicani.

**Prices.**—The prices of crude oil are maintained at the former level, notwithstanding the considerable increase in the production. The reason for this is that the new production does not enter the market and is not accessible to the small refiners.

**Internationale.** — This company, which has recently been re-organised, has increased its capital to 3,000,000 florins. The increase in the production of the company on the Bustenari areas has favourably influenced the issue, and the shares have been placed at 120 per cent.

**Romana-Americana.**—The production of this company during the past week averaged 1,100 tons a day, of which 1,050 tons were obtained at Moreni, 25 tons at Baicoi, 20 tons at Bustenari, and 5 tons at Tetzcani. Well No. 8P, which yielded over 300 tons a day by eruptions, has been entirely destroyed.

**The Orion.**—Well No. 501 of this company at Bana-Moreni, which reduced its production two months ago, is again producing regularly from 25 to 30 tons a day. At Gropi the company has extended its work with great activity, and is shortly expecting good results. The production of well No. 302 at Gropi is maintained at 15 to 20 tons a day.

**General Production.**—The general production maintains at the high level of 6,500 tons a day. The increase in the production is due to the intermittent eruptions from well No. 16S of the Astra-Romana and to the strike of oil in the well No. 30 of the Roumanian Consolidated Oilfields at Bana, which latter well yields by continuous eruption 800 tons a day.

**Well No. 37 Astra-Romana at Moreni.**—Well No. 37 of the Astra-Romana at Moreni, which has been in violent eruption and yielding from 500 to 600 tons a day, has been temporarily closed, owing to a demand of the Ministry of Industry to take certain measures for transporting and storing the oil, and also measures of safety, as the well has given off large quantities of gas. The well will shortly be re-opened.

**Production of Petroleum during March.**—The production of petroleum during March (n.s.) was as follows:—Astra-Romana, 50,778 tons; Romana-Americana, 38,153 tons; Orion, 5,705 tons; Roumanian Consolidated Oilfields, 4,844 tons; Chiciura Oilfields of Roumania, 320 tons; Internationale, 4,018 tons; Nafta, 3,297 tons; Traian-Roumanian Oil Company, 2,056 tons; Aquila Franco-Romana, 1,358 tons.

**Well No. 16S Astra-Romana.**—Well No. 16S of the Astra-Romana at Moreni, which has recently been in very violent eruption, has been closed for a few days in order to take the necessary safety measures. When re-opened, the well recommenced its eruptions, which soon stopped, owing to the formation of a sand cork, which is now being cleaned. Notwithstanding the cork, the quantities of oil which the well yields are very substantial.

◆

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## PATENTS.

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*Messrs. EDWARD EVANS & CO. would be pleased to forward a copy of any of the Specifications on request, and on remittance of a P.O. for 1s. to cover cost and postage. They would also be pleased to advise upon the novelty, subject-matter, and value of any invention submitted to them by our subscribers.*

### Application Published.

**Apparatus for storing and delivering inflammable liquids.**—Hermann Hoffmann, of 84A, Niddastrasse, Frankfort-on-the-Main, Germany. No. 9883 of 1913. This relates to an apparatus for the storage of inflammable liquids and for the delivery of same by displacement by means of a specifically heavier liquid, in which there is provided between the suction side and the pressure side of the pump, or actuating device for the heavier liquid, a connection pipe having means whereby it is closed during delivery, but is open during storage or at rest so as to prevent actuation of the heavier liquids or delivery of the inflammable liquid except on the closing of the connection pipe.

### Applications Filed.

**Process of treating residue of petroleum distillation.**—Harold Wade (Standard Oil Company). No. 6593 of 1914.

**Automatic method of using either light or heavy liquid fuel separately or collectively for use in internal combustion engines.**—Frederick Rawlings and Rawlings Bros. Ltd. No. 6718 of 1914.

**Process for the conversion of higher boiling mineral oils into lower boiling products.**—Continental-Caoutchouc-und Guttapercha Cie. No. 7112 of 1914.

## IMPORTS OF PETROLEUM PRODUCTS INT ITALY DURING 1913.

The total quantity of petroleum products importe into Italy during 1913 amounted to 283,350 tons, against 270,324 tons imported during 1912. Th following table shows the details of the imports :—

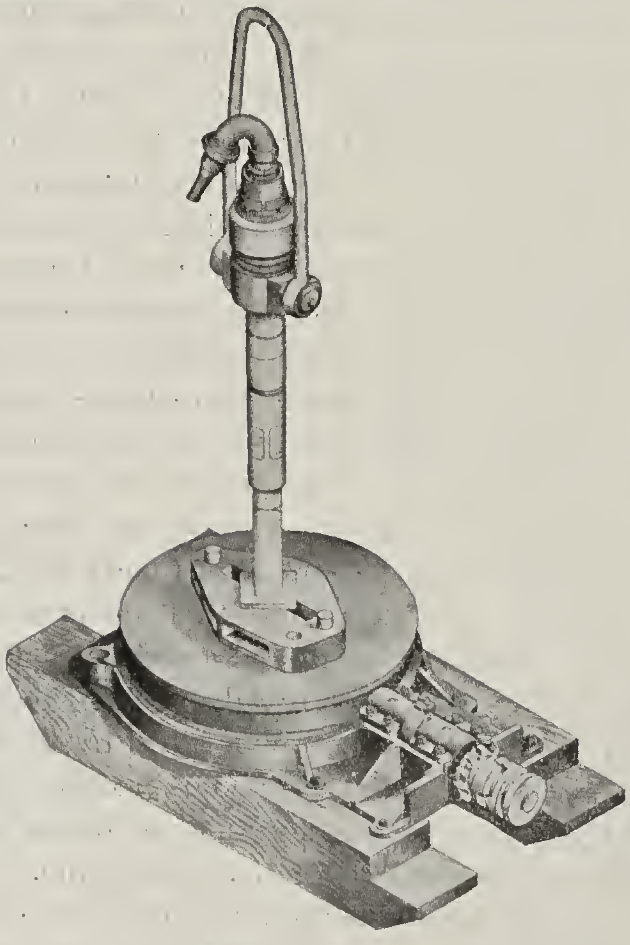
| | Kerosene. | Benzine. | Lubricating Oils. | Residuals. | Paraffin. | Other |
|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Ton |
| Austria ... ... | 5,620 | 1,400 | 6,125 | — | 9,006 | 5 |
| Russia ... ... | 5,108 | — | 8,988 | — | — | — |
| Roumania ... | 24,223 | 10,565 | — | 46,628 | — | — |
| United States ... | 80,397 | 16,991 | 34,616 | 296 | 8.490 | 1,12 |
| Other countries... | 33 | 1,616 | 8,267 | 83 | 7,061 | 6,05 |
| Totals .. | 115,381 | 30,572 | 58,098 | 47,007 | 24,557 | 7.73 |

◆

## OUTPUT OF ROUMANIAN REFINERIES DURING FEBRUARY.

The quantity of crude oil treated in the Roumania refineries during February amounted to 134,685 tons from which 132,573 tons of products were manufactured The following table shows the quantities of product manufactured, as well as those delivered for inner con sumption, used as fuel in the refineries, and those lef in stock at the end of the month :—

| | Manufactured in Jan. 1914. Tons. | Delivered for Inner Consumption. Tons. | Used as Fuel in the Refineries. Tons. | In Stock on Feb. 28th. Tons. |
|---|---|---|---|---|
| Benzine ... | 32.302 | 2,726 | — | 71,910 |
| Kerosene ... | 28,366 | 5,517 | — | 133,533 |
| Lubricating oil | 4,566 | 3,493 | 51 | 15,541 |
| Residuals ... | 67,339 | 48,392 | 11,620 | 54,256 |
| Paraffin ... | — | 193 | — | 117 |
| Totals .. | 132,573 | 60,321 | 11,671 | 275,357 |



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# PETROLEUM AND ITS DERIVATIVES.

By DAVID T. DAY, Ph.D.

(*Concluded from page 456.*)

Thus, certain Mexican petroleums contain naturally only 2 per cent. of gasoline, but, by slowly heating, these oils break up so that they yield about 7 or 8 per cent. of gasoline. But these so-called "cracked" oils are bad smelling and difficult to refine. Several years ago I found that if these oils are distilled under pressure the yield of gasoline is still greater, and that the unpleasant odour due to deficiency in hydrogen in the composition of the oils can be remedied by actually combining hydrogen with the oil in the still under the influence of a catalytic agent. Recently the demand for any kind of gasoline has waived the requirement of good odour, and other processes are producing much synthetic gasoline. By such means low-grade residues have been made to yield from 20 to perhaps 70 per cent. of their weight in material which will serve as gasoline.

The main difficulty in carrying out these processes is lack of knowledge of the behaviour of individual oils when heated. At this point our fundamental study of individual hydrocarbons fails. It seems wise just at this time to encourage to the greatest extent the study of the characteristics of these individual hydrocarbons — not only to know more of the way they break up when heated, but to study the effect of chemical agents upon them in forming a long series of new substances and of old substances in cheaper or purer conditions.

To this plea for greater exactness of knowledge I would ask your earnest attention.

But what are complex and what are simple oils? What is Petroleum? Petroleum is so many things under so many conditions that at first it seems hopeless to attempt to define it.

Yet we can distinguish between petroleum and all other substances as being made up of hydrocarbons and frequently holding in solution those indefinite compounds of hydrogen and carbon, with oxygen or sulphur, or both, that we call asphaltic compounds.

There are so many hydrocarbons interdissolved in this complex mixture, usually containing different proportions of hydrogen to carbon, that they would seem to grade without solution of continuity from marsh gas through hydrocarbons containing progressively more carbon. Meanwhile, blended with these pure hydrocarbons are, frequently, the asphaltic materials, which, with ever-increasing carbon, extend the complexity of the subject through gilsonite and grahamite to the indefinite border land of coal.

We recognise that a separation of this great mixture into all its simple oils is beyond the possibility of any one man, and—to further present, frankly, the sum of discouragement which this problem presents—while we are separating these constituents, many of them are broken up into still new oils by the very agents (heat, chemicals, etc.) which we use for their separation.

In spite of all this the work of many scientists taken together has isolated one oil after another, and simple individual oils have been taken out of the mixture. We all know that this has taught the encouraging fact that there is system in the variation of these oils one from another We know that we can group the oils into a few homologous series, and in each series each oil differs from the next member by a definite amount of hydrogen and carbon, and with a difference in boiling point which makes possible certain methods of separation. There is similar difference in viscosity, specific gravity, etc., which properties are also being availed of as aids in separation.

It is only recently that we have come to avail ourselves of properties which characterise each series as a whole in order to separate a whole group at once and then study its members.

The first of these processes, historically speaking, has been to treat the complex oils with sulphuric acid, and by keeping the acid cold and using it sufficiently strong we can destroy and thus remove all of the groups except what we call paraffin hydrocarbons, and if we heat the oil we can easily attack these paraffin oils also. Lately other important processes have been added: Thus Nastukoff, in Russia, has found that by treating oil with formaldehyde and sulphuric acid, condensation products are formed with certain groups of oils. Again, Holde and others have formulated methods for extracting certain kinds of asphalt from oils by precipitation with gasoline. These and other methods which it would lead us too far to consider have enabled Prof. Engler to formulate a general method which it is believed will soon enable us for purposes of study to sufficiently separate a given petroleum into its groups of components, and the study of each of these will soon give far better fundamental information of the constitution of our oils. Evidently many surprises await us as to the character of these individual oils. We are accustomed to think of the best of oils as having odours that are persistent and disagreeable. These we will find are due usually to slight amounts of impurities. Already we know odourless oils, such as albolene and vaseline when fresh—that qualification "fresh" is significant and of promise. The very fact that oils develop an objectionable odour with age is significant when we learn that these odours are chiefly oxidation products allied to fatty acids, and of the greatest promise for the future production of such valuable substances as butyric, oleic, stearic and other acids. We must look upon the individual petroleum oils, therefore, as the starting point for compounds of great utility. The greatest advance which has come in the consideration of the chemical derivatives from these oils is due to recognising that these hydrocarbons are, after all, not the refractory inert substances that we have taken them to be, but susceptible by chemical treatment of yielding a host of products. Theoretically, this has long been possible—as a practical feature it is in its infancy. But already the oxidation products, such as fatty acids capable of being saponified into soaps, are being investigated in this city. Chlorine products are being made which offer strange new properties with suggestions of many new uses. Strangely enough, these chlorine products will not burn readily, and already some of these products of inflammable kerosene are used most effectively as fire extinguishers.

Another line of investigation is proving helpful in the direction of adding hydrogen to oils which owe their bad odour and colour to lack of saturation. The chemical possibilities with these lower grade unsaturated products are problems for the future. We know at least that we can add hydrogen to them and then form the chlorine or oxygen products which have already been referred to, but beyond doubt their unsaturated condition will enable them to be acted upon directly to form other lines of valuable products. In fact, years ago, my brother, Dr. W. C. Day, then of Swarthmore College, indicated a line of valuable research by actually making good varnishes by treating waste unsaturated residues with nitric acid. We know little of what sulphur will accomplish in combination with oils. The same is true of phosphorus and other active chemical agents. The very vastness of this field of research teaches one fundamental lesson, one suggested by the coal-tar industry. It is characteristic of that industry that the individual oils were easily separable from each other, so that the fundamental properties of each could be thoroughly studied once for all, and upon that basis of thorough and exact knowledge vast stores of useful application were quickly based, yielding us, besides aniline dyes, saccharine and a host of helpful medicines. But we have no such fundamental knowledge of petroleum oils. Can there be any doubt that the quickest, surest road to the knowledge of the chemical uses for petroleum for the most successful application of it in all ways must be by promoting the study of the individual components? Such exact, purely scientific, work must be carried out by an organised corps of workers supported by an endowment for this work, and be purely fundamental and kept distinct from industrial work, or it will prove too complicated for prompt completion. It is the work of many, but it may be begun by one—some one capitalist who will benefit all mankind by a foundation for petroleum research.

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## AMERICAN EXPORTS FOR FEBRUARY.

### Official Statistics.

According to the official publication of the Washington Bureau of Statistics the exports of petroleum from America from the various ports during February were as under :—

| Crude— | 1912. Gallons. | 1914. Gallons. |
|---|---|---|
| New York | 250,790 | 12,300 |
| Philadelphia | — | — |
| Galveston | — | — |
| New Orleans | — | 3,470,618 |
| Sabine | 917,081 | 786,460 |
| Arizona | 2,156,000 | 973,135 |
| Puget Sound | 5,048,081 | — |
| San Francisco | — | — |
| Buffalo | — | — |
| Cuyahoga | — | — |
| Minnesota | — | — |
| Washington | — | 418,148 |
| Dakota | — | 50 |
| Michigan | — | 571,995 |
| Totals | 8,371,952 | 6,232,706 |
| Values | $255,166 | $266,632 |

| | 1913. Gallons. | 1914. Gallons. |
|---|---|---|
| Naphthas— | | |
| Baltimore | — | 3,355 |
| New York | 4,563,863 | 7,262,676 |
| Philadelphia | 5,136,093 | 1,171,562 |
| Galveston | — | 3,475 |
| New Orleans | 82,200 | 107,367 |
| Sabine | 2,112,044 | 2,381,419 |
| Arizona | 1,136 | 8,124 |
| Puget Sound | 112,019 | — |
| San Francisco | 22,540 | 132,719 |
| Southern California | — | 418 |
| Washington | — | 82,924 |
| Buffalo | 718,858 | 391,538 |
| Cuyahoga | — | — |
| Minnesota | 259,799 | — |
| Dakota | — | 74,231 |
| Michigan | — | 88,282 |
| Ohio | — | — |
| Totals | 13,008,552 | 11,708,090 |
| Values | $1,844,708 | $1,651,959 |
| Illuminating— | | |
| Baltimore | 20,618 | 16,218 |
| New York | 40,207,057 | 31,806,076 |
| Philadelphia | 12,832,214 | 17,107,264 |
| Galveston | — | — |
| New Orleans | 5,731,257 | 10,689,697 |
| Sabine | 4,589,881 | 9,156,135 |
| Arizona | — | 68,325 |
| Puget Sound | 553,912 | — |
| San Francisco | 4,973,724 | 6,579,618 |
| Southern California | — | 1,340 |
| Washington | — | 9,255 |
| Buffalo | 36,760 | 25,327 |
| Cuyahoga | — | — |
| Minnesota | 223,285 | — |
| Dakota | — | 64,126 |
| Michigan | — | 128,469 |
| Ohio | — | — |
| Totals | 69,168,708 | 75,651,850 |
| Values | $4,441,569 | $5,031,311 |
| Lubricating and Paraffin— | | |
| Baltimore | 1,008,592 | 485,459 |
| New York | 10,501,505 | 9,031,007 |
| Philadelphia | 5,457,740 | 1,599,360 |
| Galveston | 126,702 | 10,650 |
| New Orleans | 123,572 | 147,317 |
| Sabine | — | 247,069 |
| Arizona | 267 | 27,236 |
| Puget Sound | 10,565 | — |
| San Francisco | 66,521 | 123,565 |
| Southern California | — | 302 |
| Washington | — | 21,428 |
| Buffalo | 290,300 | 196,417 |
| Cuyahoga | — | — |
| Minnesota | 110,238 | — |
| Dakota | — | 41,121 |
| Michigan | — | 43,024 |
| Totals | 17,696,002 | 11,973,955 |
| Values | $2,411,189 | $1,766,284 |
| Residuum, Gas Oil and Fuel Oil, etc.— | | |
| Baltimore | — | — |
| New York | 963,851 | 8,030,861 |
| Philadelphia | 1,471,355 | 2,176,949 |
| Galveston | — | — |
| New Orleans | 4,720,374 | 4,829,369 |
| Sabine | 4,358,111 | 4,007,086 |
| Puget Sound | 340,173 | — |
| San Francisco | 6,134,576 | 19,843,977 |
| Southern California | — | 5,600,715 |
| Washington | — | — |
| Buffalo | 291,375 | 82,407 |
| Cuyahoga | — | — |
| Minnesota | 37,450 | — |
| Dakota | — | 32,663 |
| Michigan | — | 360,805 |
| Ohio | — | — |
| Totals | 18,312,265 | 44,964,832 |
| Values | $519,626 | $1,213,698 |

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# THE PROGRESS OF LIQUID FUEL.

## IMPORTANT ADDRESS BY Mr. J. VEITCH WILSON.

*(Concluded from page 454.)*

I return now to Mr. Booth, from whom I quote the following paragraph:—

"The B.T.U. in petroleum vary from 17.000 to 20.000, one experiment giving 20.110. The value taken in Texas is 18.500 B.T.U., or 10.277 calories. The scientific investigation of the coals, etc., used there, with respect to their heat units, has not progressed very far; but it is not thought that, on the average, the B.T.U. in the coals will be above 12.600, if indeed above 10.800, and are taken, for the present, at 11.700. For the lignites a lower value must be taken, and for the present this will be 9.900."

Having now considered the thermal value of various fuels, solid and liquid, it may be interesting to devote attention for a few minutes to the final and most important question of their relative commercial value. I submit this information in the shape of three tables culled from various sources. For the first I am again indebted to Mr. Booth, who quotes the following particulars from Professor Denton, one of the most eminent American authorities upon this subject.

Table VII. (Denton), showing equivalent values for oil at various prices for coal:—

| Price of Coal per Ton of 2,240 lb. | | Equivalent Price for Oil per American Barrel of 42 Gallons. | |
|---|---|---|---|
| $1.00 | 4/- | $0.29 | 1/2½ |
| 1.50 | 6/- | 0.43 | 1/9½ |
| 2.00 | 8/- | 0.56 | 2/4 |
| 2.50 | 10/- | 0.71 | 2/11½ |
| 3.00 | 12/- | 0.85 | 3/6½ |
| 3.50 | 14/- | 0.99 | 4/1½ |
| 4.00 | 16/- | 1.13 | 4/8½ |
| 4.50 | 18/- | 1.28 | 5/4 |

As the Imperial gallon is one-fifth larger than the American gallon, one-fifth must be added to each of these prices to arrive at the value in British measure and price.

I am glad to be able to submit two tables by a British authority upon the cost of fuel. For these I am indebted to Mr. C. E. Stromeyer, Chief Engineer to the Manchester Steam Users' Association, who has kindly furnished me with a copy of his last report, with permission to quote from it.

Table VIII. (Stromeyer), showing relative prices of oil and coal if equal economic results are to be obtained:—

| | | | | | | |
|---|---|---|---|---|---|---|
| Crude Oil, per ton (shillings)... | 35 | 40 | 45 | 50 | 55 | 60 |
| Crude Oil, per gallon (pence)... | 1·75 | 2·0 | 2·25 | 2·5 | 2·75 | 3·0 |
| Good Coal, per ton (shillings)... | 26 | 30 | 34 | 38 | 41 | 45 |

Table IX. (Stromeyer), showing relative prices of oil and coal used in various engines:—

| Fuel. | Per ton. | | | | | |
|---|---|---|---|---|---|---|
| Crude Oil for Diesel engine ... | 35/- | 40/- | 45/- | 50/- | 55/- | 60/- |
| Petrol „ „ „ ... | 44/- | 50/- | 56/- | 62/- | 69/- | 75/- |
| Coal for producer gas engine.. | 11/6 | 13/6 | 15/- | 16/- | 18/6 | 20/- |
| Coal for gas-fired boiler ... | 8/6 | 9/6 | 10/6 | 12/- | 13/- | 14/- |
| Coal for steam engine ... | 10/- | 12/- | 13/6 | 15/- | 16/6 | 18/- |

The following particulars of a twenty-four hours' trial and of the first voyage from Hamburg to Havana of the Diesel engine ship "Christian X.," are taken from *Engineering* of January 3rd, 1913.

Table X. Fuel Consumption of Diesel engine ship, "Christian X.":—

| Details. | Trial, 24 hours. | Voyage of 4,627 nautical miles, occupying 17½ days. |
|---|---|---|
| Power of main engines ... ... | 2,383 I.H.P. | 2,390 I.H.P. |
| Fuel used in 24 hours ... ... | 8 545 tons | 9·732 tons |
| „ per I.H.P. per hour ... | 0·149 kilos | 0·168 kilos |
| „ „ „ ... | 0·338 lb. | 0·370 lb. |
| Power of Auxiliary Compressors | 216 I.H.P. | |
| Fuel per 24 hours... ... ... | 840 kilos | |
| „ „ I.H.P. ... ... ... | 0·162 kilos | |
| „ „ „ ... ... .. | 0·365 lb. | |

The "Christian X" was built and engined by Messrs. Burmeister and Wain, of Copenhagen, and is a sister ship to the "Selandia," built and engined by the same firm, which many of us in this room had an opportunity of visiting when she was in the London Docks.

The main dimensions of both ships are: Length, 386 ft.; beam, 53 ft.; depth, 30 ft.; draught, 23½ ft. at 7,400 tons displacement; gross tonnage, 4,900 tons. Two Diesel Main Engines, 1,250 h.p. each, equals 2,500 total; and two propellers give a speed of 11¼ knots.

The main engines are four cycle motors, having eight cylinders, each 20⅞ in. in diameter and 28¾ in. in stroke; they run normally at 140 revolutions; the main engines also drive the compressed-air service high-pressure pumps.

The auxiliary engine equipment comprises a pair of 200-h.p. Diesel engines, driving dynamos and compressors, sanitary cooling and lubricating pumps, winches, steering engines, etc.

In my earlier remarks I called attention to the fact that the best results in comparing oil with coal were not to be obtained by using oil instead of coal in furnaces for raising steam, but by utilising oil in internal combustion engines, and while, from the data scattered throughout my paper, it appears that the effective value of oil for steam raising may still be taken as from 50 to 100 per cent. greater than coal, its value in an internal combustion engine may be from three to four times that of coal.

Mr. F. M. Timpson, in opening the discussion, said it was peculiar, in view of Mr. Veitch Wilson's remarks, that more mineral oil than vegetable oil was used for internal combustion engine purposes. The mineral oils were found to be very satisfactory, both for light and heavy engines.

Mr. J. C. Williams considered that the question of suitability largely depended on the manner in which the oil was introduced. The lubricating oil was put in as a lubricant, and, therefore, did not burn so quickly, with the result that it carbonised. Any oil introduced under those conditions would give the same result.

Mr. J. Clark said the proper mixture of the air supply had a great effect upon the production of smoke, and many oil fuels produced smoke if they were not carefully watched.

Mr. F. O. Beckett said the introduction of the internal combustion engine opened up a problem for metallurgists to make a metal which would withstand the exceptional heat.

Mr. Duncan Barr referred to methods of disposing of the tarry residue of a gas producer plant.

Mr. J. Shanks said he understood it was not possible in Diesel engines to introduce the lubricating oil with the fuel oil. The improvements effected in the steam engine in recent years had made it impossible for the internal combustion engine to gain a footing on the ground of economy, but when oil became cheaper in price marine engineers were prepared to take charge of the internal combustion engine, and run it as successfully as they did the steam engine.

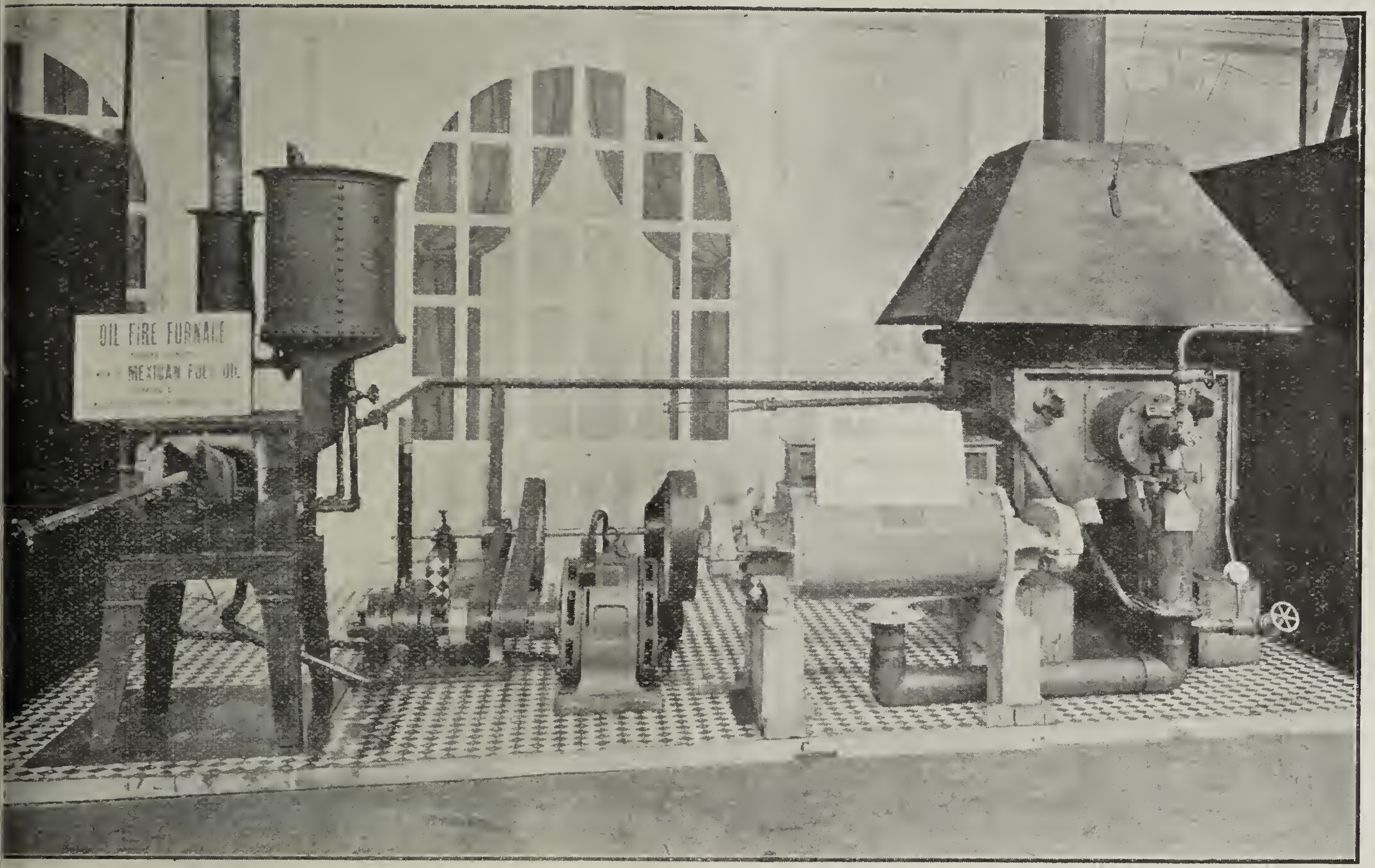
In replying, Mr. Veitch Wilson said his experiments had proved that fatty oils were not responsible for deposits in the engine. Troubles with deposits, or gumming, in gas engines were generally overcome by the use of a vegetable oil, and this course was invariably adopted and recommended by the late Sir William Crossley and the well-known makers of gas engines. With regard to the late Dr. Diesel's recommendation of mineral oil for the Diesel engine, this seemed inconsistent in view of his recommendation of his engine, because it could not use pure vegetable oils.

A vote of thanks was accorded to Mr. Veitch Wilson on the proposal of Mr. George Adams, seconded by Mr. J. Clark.

The meeting closed with a vote of thanks to the chairman.

# FURNACES FIRED ON MEXICAN OIL FUEL.

## AN INTERESTING CORNER OF THE RECENT OIL EXHIBITION.



THE illustration here reproduced shows an interesting rner of the recent World's Oil Exhibition, in which imerous demonstrations were given of the use of exican oil fuel in furnaces, the fuel being supplied the Anglo-Mexican Petroleum Products Company, d.

The furnace on the right is of Brett's well-known make, and it was here that the London Small Arms Company brought bars of best steel to a liquid state in seven and a-half minutes from cold. The furnace on the left is of the Alldays & Onions' make, and in its demonstrations was also highly successful, as proving the enormous heat which can be generated in a few minutes by the use of Mexican oil fuel.

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## THE PETROLEUM TRADE OF BATOUM.

### Statistics for February.

The total imports of petroleum products into Batou during February amounted to 5,007,500 poods, to exports abroad to 2,693,892 poods, and the total expo inland to 446,419 poods. The following table sho the details of the imports to and exports from Batou during February, as well as the quantities in store March 1st :—

| | Imports. | Exports. | | In store |
|---|---|---|---|---|
| | | Abroad. | Inland. | Mar. |
| | Poods. | Poods. | Poods. | Pood |
| Kerosene ... ... ... | 3,784,861 | 1,884,938 | 434,166 | 4,058,9 |
| Lubricating oil ... ... | 776,219 | 750,121 | 10,506 | 2,624.9 |
| Residuals ... ... ... | 380,859 | 40,680 | 920 | 885,8 |
| Crude oil ... ... ... | 75,561 | — | 827 | — |
| Other products ... ... | — | 18,153 | — | — |
| Totals ... ... ... | 5,007,500 | 2,693,892 | 446,419 | 7,569.7 |

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## IMPORTS OF PETROLEUM PRODUCTS INTO BELGIUM DURING JANUARY.

The imports of petroleum products into Belgiu during January amounted to 19,211 tons, as agair 22,874 tons imported during the corresponding mon of the preceding year. The following table shows t details of the imports :—

| From | Kerosene. Tons. | Other Produc Tons. |
|---|---|---|
| Austria ... .. ... | 133 | ... 12 |
| Russia ... ... ... | — | ... 627 |
| Roumania ... ... | 36 | ... — |
| United States ... ... | 11,013 | ... 5,199 |
| Other countries ... .. | 699 | ... 700 |
| Totals ... ... | 11,881 | ... 6,538 |

Besides the above products, there were also importe 792 tons of crude oil.

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## DETAILS OF BAKU PRODUCTION DURING JANUARY.

The following table shows the details of the petroleum production on the Baku areas during January :—

| | Number of Wells in exploitation. | Production (in poods). | | | | Average per Well per Day. |
|---|---|---|---|---|---|---|
| | | By Baling. | By Spouters. | Casual. | Total. | |
| Balakhany ... ... ... ... ... ... | 990 | 5,695,533 | — | 281,960 | 5,977,493 | 191 |
| Saboontchi ... .. ... ... ... ... | 1,300 | 13,856,119 | — | 114,915 | 13,971,034 | 359 |
| Ramany ... ... ... ... ... .. | 291 | 5,208,972 | — | 41.930 | 5,250,902 | 611 |
| Bibi-Eybat ... ... ... ... ... ... | 325 | 7,071,350 | 1,229,000 | 8,445 | 8,308,795 | 859 |
| Total ... ... ... ... ... | 2,906 | 31,831,974 | 1,229,000 | 447,250 | 33,508,224 | 382 |
| Total for January, 1913 ... ... | 2,660 | 33,372,977 | 1,276,126 | 408,332 | 35,057,435 | 438 |

# New Capital in the Russian Petroleum Industry.

No industry in Russia has so greatly profited by the flux of capital during the period 1911-14 as has the ussian petroleum industry. The favourable circumunces which have influenced the world's petroleum arket, and especially the Russian market, have drawn e attention of English, French, Belgian and Dutch pitalists, who have taken special interest in shares of ussian petroleum enterprises.

Russian petroleum shares have now become favourite jects on the Paris and Amsterdam exchanges. In a mparatively short period of time the Amsterdam change has accepted the shares of six Russian troleum companies, in which are also interested glish and French capitalists. The part taken by the change in attracting new capitalists to the Russian troleum industry has been enormous. The amount of rmation capital for the petroleum industry, the shares which are quoted on the St. Petersburg exchange, s for the recorded period nearly trebled. Altogether January 1st, 1914, there were quoted on the St. tersburg exchange shares of nineteen petroleum terprises with a total capital of 145,180,000 roubles, against fifteen enterprises with a capital of ,200,000 roubles on January 1st, 1911.

The increase of the capital was principally due to e increase of the formation capital of enterprises, the ares of which were previously already quoted on the St. tersburg exchange. Thus the following companies ve increased their formation capital :—Mazout Comny, by 6,000,000 roubles ; Nobel Bros., by 15,000,000 ubles ; Mantascheff & Co., by 9,000,000 roubles ; ssian Nafta Society, by 11,000,000 roubles ; Baku troleum Company, by 1,100,000 roubles ; and Petrol troleum Company, by 2,000,000 roubles. The llowing table will give a good idea of the increase in pital of the Russian petroleum companies during the corded period :—

| | January 1st. 1911. Roubles. | January 1st. 1914. Roubles. |
|---|---|---|
| amazd Company ... ... | 4,000,000 | 4,000,000 |
| shaluis Petroleum Company | 1,600,000 | 1,600,000 |
| ku Petroleum Company .. | 5,564,000 | 5,785,000 |
| bi-Aibat Russian Petroleum Company ... ... ... | 80,000 | 80,000 |
| bi-Aibat Moscow Volga Co. | 1,000,000 | 1,000,000 |
| spian Society ... ... | 7,500,000 | 7,500,000 |
| anosoff Company ... ... | 2,000,000 | 16,000,000 |
| azout Company ... ... | 6,000,000 | 12,000,000 |
| antascheff & Co. ... ... | 11,000,000 | 20,000,000 |
| elikoff Company ... ... | 2,000,000 | 2,000,000 |
| irzoeff Bros. ... ... ... | 3,210,000 | 3,210,000 |
| aftalan Company ... ... | 2,400,000 | 2,400,000 |
| ssian Nafta Society ... | 5,500,000 | 16,500,000 |
| bel Bros. ... ... ... | 15,000,000 | 30,000,000 |
| trol Company ... ... | 2,000,000 | 4,000,000 |
| ps Company... ... ... | 1,200,000 | 1,200,000 |
| ssian Petroleum Company | 2,181,750 | 2,181,750 |
| r-Akopoff Company ... | 4,500,000 | 9,000,000 |
| ikhovo Company ... ... | 3,000,000 | 3,000,000 |

Special attention is drawn to the enormous increase the formation capital of the Russian Nafta Society from 5,500,000 roubles to 16,500,000 roubles, and Lianosoff Company from 2,000,000 roubles to 16,000,000 roubles. The capitals have doubled of the companies Nobel Bros., Mazout Company, Petrol Company, Ter-Akopoff Company, and Mantascheff Company. During the recorded period the shares of Messrs. Nobel Bros. Society were entered on the Berlin market and the shares of Lianosoff Company on the Paris market.

At the beginning of this year the shares of the Ter-Akopoff Company were also introduced on the last-named exchange. As a result of the formation of the petroleum trust, the Russian General Oil Corporation, and the introduction of the shares of this trust on the London, Paris, Brussels and Amsterdam exchanges, the influence of foreign capital on the Russian petroleum industry will be considerably extended. It is also to be noted that the shares of the Mazout Company have passed into the hands of the "Shell."

During the recorded period the dividends, as well as the rates of the shares of the Russian companies on the Petersburg exchange, have considerably increased, as can be seen from the following table, stating the dividends and the rates of the shares of the principal companies on the St. Petersburg exchange :—

| | Dividend in Roubles. | | Rates of shares on Dec. 30th. | |
|---|---|---|---|---|
| | 1910. | 1912. | 1910. | 1913. |
| Baku Petroleum Company | 7.50 | 45 | 268 | 673 |
| Caspian Society ... ... | 80 | 150 | 1,425 | 3,025 |
| Nobel ... ... .. | 600 | 1,100 | 10,650 | 18,600 |
| Nobel ... ... ... | 30 | 55 | 530 | 983 |
| Ter-Akopoff ... ... | — | 20 | 50 | 410 |

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## DETAILS OF PETROLEUM PRODUCTION AND BORING ON THE GROSNY OILFIELDS.

### Statistics for January.

The following table shows the details of the production of petroleum and boring on the Grosny oilfields during January :—

| | Eastern Area. | Western Area. | New Area. | Total. |
|---|---|---|---|---|
| No. of plots in exploitation ... | 29 | 45 | 2 | 76 |
| No. of wells in production ... | 153 | 155 | 3 | 311 |
| Total production (poods) ... | 4,125,020 | 2,894,346 | 322,177 | 7,341,543 |
| Including spouted oil (poods) | — | 457,290 | 322,177 | 779,467 |
| No. of plots in boring ... | 31 | 27 | 15 | 73 |
| No. of wells in boring ... | 61 | 52 | 20 | 133 |
| No. of feet bored ... ... | 7,871 | 12,731 | 6,627 | 27,232 |

PUBLICITY.

All enterprising firms advertise in the "REVIEW."

. . Shall we quote Rates ? . .

*Send a Postcard to Advertisement Manager—*

**"REVIEW" Offices: 45, ST. MARY AXE, E.C.**

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

April 24th, 1914.

The prices of Refined Petroleum have been reduced all round by ¼d. per gallon, present prices being:—Russian, 7½d.; American, 7¾d.; American Water White, 8¾d.; Roumanian, 7¼d.; Galician, 7¼d. per gallon.

### LUBRICATING OILS

are unchanged. The following are the current prices:—

No. 1 Russian, £12. 2s. 6d.
No. 2 Russian, £10. 17s. 6d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted at 70s. per ton, ex wharf.

### MOTOR SPIRIT.

The retail price in London is 1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality.

### TURPENTINE.

American Turpentine is slightly easier, being quoted, for spot, 32s.; May/August, 32s. 4½d.; September/December, 33s. 3d.

## LIVERPOOL.

April 23rd.

Petroleum oils have a steady sale, and former currencies are asked for Refined, 8¾d. being still quoted for Russian, and 9d. to 10d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, March 22nd.

The following are the current prices of the Standard Oil Company of New York:—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., " ... | 5 | 12 | 2 | " |
| Chester Brand, 75 deg., Abel " ... | 5 | 2 | 2 | " |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | " |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | " |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | " |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | " |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows:—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production:—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| " Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| " Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| " " per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| " Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| " " per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... .. ... | 0 | 4 | 0 |
| " " " 2nd quality ... .. ... | 0 | 3 | 0 |
| " Candles, per pound ... .. .. ... ... | 0 | 4 | 0 |

## AMERICA.

New York, April 23rd

Refined, in cases, is quoted at 11·20; Standard Whi 8·70; Credit balances, 2·50.

Philadelphia, April 23rd

Standard White is quoted at 8·70.

## GERMANY.

Hamburg, April 22nd.

The petroleum prices remain unchanged. T offer for benzine begins to be lively. Americ and Galician, 8·85; Russian and Roumanian, 8· Motor spirit, first quality, M. 46·75 for 0·690–0·710 a M. 39·75 for 0·710–0·730; second quality (0·750–0·7 gravity), 32·00–33·00.

## RUSSIA.

Baku, April 21st.

The tendency of benzine is lower, that of gas oil a lubricating oils higher. Crude oil is quoted at 38½- copecs per pood spot. Kerosene, 48 copecs. Re duals, 37–37½ copecs.

## ROUMANIA.

April 21st.

The export of petroleum is for the moment ve restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·40–8·5 |
| " " " | Moreni ... | 7·50–8·0 |
| " " " | Tzintea ... | 6·00–7·0 |
| " " " | Policiori... | 6·00 |
| " " " | Bordeni ... | 9·25–9·5 |
| " " " | Bana ... | 10·50 |
| " " " | Baicoi ... | 8·00–8·5 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9· |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29· |
| " sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–26· |
| " sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19· |
| " sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18· |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7· |
| Gas Oil... ... ... ... ... ... | 8·0 |

## AUSTRIA.

April 21st.

Crude oil is quoted 6·60 kronen spot. Keroser 29 kronen at Oderberg. Benzine, 700/710, kronen at Oderberg. Gas oil, 7·00 kronen Oderberg. Paraffin, on the basis 50/52, c.i.f. Hambur M. 38·00.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, Londo E.C., report, under date April 16th, as follows:—

Business has been practically at a stand owing to th Easter holidays, and prices are unchanged as under:-

| | | | | |
|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/4½ to 13/6 per bo |
| 1c | 20 ×10 | 225 " | 156 " ... | 18/9 " 18/10½ " |

F.o.b. Swansea. Tin lining and iron hooping extr

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# The American Oil Market.

### Saturday, April 11th, 1914.

Developments in the crude market situation during the interval have been of a more pronounced bearish character than for a considerable period. Interest has centred in the posting of two declines of 5 cents each in Mid-continent oil, the first on April 8th and the second on April 10th, the latter establishing a 95-cent basis. There had been concern over the stability of the market, owing to the heavy gain in the general output taxing storage and carrying facilities to a maximum. Another material decline was in the heavy Caddo oil by 15 cents to 60 cents, while a 5-cent reduction to 65 cents was noted in the heavy Corsinana product. These two declines may also be charged against growing production as well as the increasing effectiveness of the Mexican oil. The lighter grades of the Texas-Louisiana fields remain on an apparently steady basis, feeling very little, if any, effect of competition from Mexican oil.

The week's review of Eastern field operations, says the *Oil Paint and Drug Reporter*, is significant in marking a sharp decline in completions, which is accounted for principally by the continued unfavourable weather and road conditions. There seems to be no reflection of the declining course of crude values in other fields upon Eastern operations, and if the market for the high-grade oils is sustained at its present level, the prosecution of test drilling is not likely to be subjected to any interference. The week's summary shows 168 completions, 3,335 barrels of new daily production, and 63 dry holes, comparing with 234 completions, 4,242 barrels of new daily production, and 81 dry holes for the former week. The loss in completions extended over the Pennsylvania, West Virginia, South-eastern Ohio, Lima, and Illinois fields, Kentucky being the only one to surpass its former record. The new production comparison was more favourable, Pennsylvania, West Virginia, Kentucky, and South-eastern Ohio sharing in the gains, leaving the declines to the Lima and Illinois fields. Harrison county, West Virginia, continues the most prolific source of new production in the high-grade fields. An interesting strike in the Grant district of the county, which had been drilled for gas, was reported to have come in at the rate of 10 barrels an hour in the Gordon sand development. In the Sardis district several of the older wells are maintaining exceptional capacities, but the pay sand in the district is now believed to have been fully developed and only capable of furnishing wells of much smaller average. Kanawha county continues the scene of an occasionally good producer, and a well drilled to the Weir sand during the week was reported to have placed 175 barrels to its credit the first twenty-four hours.

Despite the recent evidences of weakness in the crude market, there seems to be no indication of any let-up in operations in the Texas-Louisiana fields, the maintenance of values for the higher grades being the encouraging feature. Mexican crude oil is entering to a large extent in the field of fuel requirements, and the heavy domestic grades are forced to meet the relatively low prices for the imported oils. A considerable amount of wildcat drilling is in progress in the South-west fields, and the prospects for developing profitable pools are believed to be encouraging. Despite a marked decline in completions for the week, there was a substantial gain in new production. The banner strike of the week was a well in the Vinton district, credited with 13,000 barrels as a result of deeper drilling. The Sour Lake district contributed an 1,860-barrel well. In the Caddo field of Northern Louisiana the De Soto district holds the record.

## Refined Products.

The local market for illuminating oil has developed an increased volume of trade during the week, with the most favourable comparison in the export movement.

### CLOSING QUOTATIONS.

### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. April 11. | 1914. April 11. |
|---|---|---|
| Pennsylvania | $2.50 | $2.50 |
| North Lima | 1.37 | 1.49 |
| South Lima | 1.32 | 1.44 |
| Indiana | 1.32 | 1.44 |
| Illinois, above 30 degrees | 1.25 | 1.45 |
| Kansas and Oklahoma | 0.88 | 0.95 |
| Humble, Tex. | 0.85 | 0.75 |
| Saratoga | 0.85 | 0.80 |
| Sour Lake, Tex. | 0.85 | 0.75 |
| Californian, Coalinga light | — | 0.85 |
| " Kern River heavy | — | 0.40 |
| Canadian Oil | 1.77 | 1.89 |

### Refined—For Export.

| In cents. | | Week ended April 11 S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo | | 8·75 | 9·75 |
| Barrels, Philadelphia | | 8·75 | 9·75 |
| Cases, New York | | 11·25 | 12·25 |
| Cases, Philadelphia | | 11·25 | 12·25 |

### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels | 21 |
| Gasoline, 86 deg. | 29½ |

### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 | $11.15 |
| 1,000 to 3,000 | 11.25 |

### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. | 11½ |
| 150 fire test, W.W. | 12 |
| From tank wagons | 8½-9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude | 12,194,220 | 97,410,940 | 36,150,279 |
| Refined | 16,133,015 | 213,096,385 | 237,258,537 |
| Naphtha | 4,062,735 | 32,618,725 | 28,703,630 |
| Gas oil | 2,663,750 | 14,762,355 | 13,482,535 |
| Fuel oil | 15,000 | 17,305,680 | 32,270,940 |

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
SEE ADVERTISEMENT ON BACK COVER.

# Imports of Petroleum Products into the United Kingdom.

**Specially prepared for this Journal by the Customs House. All Rights Reserved.**

FOR THE WEEK ENDED APRIL 20TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| April. | London— | | | |
| 14 | Hanseatic Maritime Agency | Lub. | 40 | Bremen |
| 14 | Vacuum Oil Co. | ,, | 470 | Hamburg |
| 14 | W. B. Dick & Co. | ,, | 80 | Ghent |
| 14 | Vacuum Oil Co. | ,, | 300 | New York |
| 14 | Anglo-American Oil Co. | ,, | 41,600 | ,, |
| 14 | F. Chiesman & Co. | ,, | 2,210 | ,, |
| 14 | Produce Brokers Co. | ,, | 2,000 | ,, |
| 14 | Langley, Smith & Co. | ,, | 24.780 | ,, |
| 14 | Scott's Wharf | ,, | 2.500 | ,, |
| 15 | Produce Brokers Co. | ,, | 1,200 | ,, |
| 15 | Anglo-American Oil Co. | ,, | 37,960 | ,, |
| 15 | Vacuum Oil Co. | ,, | 22,670 | ,, |
| 15 | Mercantile Lighterage Co. | ,, | 14,000 | ,, |
| 15 | Bramwell, Fern & Co. | ,, | 7,530 | Philadel. |
| 15 | Langley, Smith & Co. | ,, | 4,270 | ,, |
| 15 | Schliemanns Oil, etc., Co. | ,, | 2,600 | ,, |
| 15 | Bowring Petroleum Co. | ,, | 21,850 | ,, |
| 15 | H. P. Wheatley & Co. | ,, | 2,400 | ,, |
| 15 | Snowdon, Sons & Co. | ,, | 2,000 | Hamburg |
| 15 | Craven & Co. | ,, | 240 | ,, |
| 16 | Port Authority | ,, | 2,350 | ,, |
| 16 | E. G. Boize | Lub. Gr. | 10 | ,, |
| 16 | A. Duckham & Co. | Lub. | 1,000 | Antwerp |
| 16 | British and Foreign Wharf | ,, | 250 | ,, |
| 16 | Page, Son & East | ,, | 880 | ,, |
| 16 | Vacuum Oil Co. | ,, | 120 | ,, |
| 16 | British Petroleum Co. | Lamp | 540,700 | Batoum |
| 16 | ,, ,, | ,, | 1,221,300 | Kustendje |
| 16 | Anglo-American Oil Co. | Lub. | 3,600 | New York |
| 16 | G. W. Sheldon & Co. | ,, | 90 | ,, |
| 16 | Trinidad Lake Asphalt Co. | Lub. Resid. | 20,000 | N. News |
| 16 | Leach & Co. | Lub. | 120 | Ghent |
| 17 | J. Taylor | ,, | 130 | New York |
| 17 | Grindley & Co. | ,, | 8,000 | ,, |
| 17 | J. W. Cook & Co. | ,, | 11,760 | Philadel. |
| 17 | Pinchin, Johnson & Co. | ,, | 1,300 | ,, |
| 17 | Anderson & Dean | ,, | 1,260 | ,, |
| 17 | Usher-Walker, Ltd. | ,, | 5,250 | Hamburg |
| 18 | Port Authority | ,, | 1,050 | New York |
| 18 | C. Shaw, Lovell & Sons | ,, | 1,000 | ,, |
| 18 | J. W. Cook & Co. | ,, | 7,000 | N. News |
| 18 | Anglo-Saxon Petroleum Co. | Crude | 1,754,100 | Pt. Fortin |
| 20 | E. G. Boize | Lub. Oil and Gr. | 740 | Hamburg |
| 20 | Craven & Co. | Lub. | 360 | ,, |
| 20 | Port Authority | ,, | 2,300 | ,, |
| 20 | British and Foreign Wharf | ,, | 30 | Antwerp |
| 20 | Brussels Steamship Co. | ,, | 90 | Brussels |
| 20 | Port Authority | ,, | 2,730 | New York |
| 20 | Langley, Smith & Co. | ,, | 4,470 | ,, |
| | Liverpool— | | | |
| 14 | D. Currie & Co. | ,, | 80 | Hamburg |
| 14 | Pickford's | Lub. Oil and Paste | 220 | ,, |
| 14 | ,, | Lub. | 250 | Antwerp |
| 14 | Worthington & Boler | ,, | 8,800 | New York |
| 14 | White Star Line | ,, | 4,080 | ,, |
| 14 | Burnaby & Chantrell | ,, | 5,250 | Baltimore |
| 14 | F. Guest | Lub. Gr. | 2,600 | ,, |
| 14 | A. Hopps & Sons | Lub. | 21,560 | ,, |
| 14 | ,, | ,, | 3,000 | N. Orleans |
| 14 | Crew, Levick & Co. | ,, | 71,370 | Philadel. |
| 14 | ,, | Lub. Gr. | 140 | ,, |
| 14 | ,, | M. Colza | 10,810 | ,, |
| 14 | Bramwell, Fern & Co. | Lub. | 5,330 | ,, |
| 14 | Meade-King, Robinson & Co. | ,, | 4,000 | ,, |
| 14 | Bowring Petroleum Co. | ,, | 2,450 | ,, |
| 14 | Worthington & Boler | ,, | 4,200 | ,, |
| 14 | Bennett's Haulage, etc., Co. | ,, | 4,350 | ,, |
| 14 | American Line | ,, | 1,000 | ,, |
| 14 | Anglo-American Oil Co. | Lub. Oil and Gr. | 5,200 | ,, |
| 14 | Fellows, Morton & Clayton | Lub. | 2,860 | ,, |
| 15 | Stockdale & Doel | ,, | 9,130 | ,, |
| 15 | E. Harrison & Co. | ,, | 16,400 | ,, |
| 15 | Meade-King, Robinson & Co. | ,, | 35,440 | ,, |
| 15 | F. Schofield & Co. | ,, | 6,000 | Baltimore |
| 15 | J. Light & Son | ,, | 2,720 | ,, |
| 15 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 15 | Bowring Petroleum Co. | Lub. | 1,920 | New York |
| 15 | Anglo-American Oil Co. | ,, | 34,760 | ,, |
| 15 | Liverpool Warehousing Co. | ,, | 480 | ,, |
| 15 | Dee Oil Co. | ,, | 3,000 | Galveston |
| 16 | Meade-King, Robinson & Co. | Lub. Gr. | 2,600 | Baltimore |
| 16 | Huxley & Co. | Lub. | 1,090 | New York |
| 16 | ,, | ,, | 210 | Ghent |
| 16 | F. Guest | ,, | 2,600 | Baltimore |
| April. | Liverpool— | | | |
| 17 | F. Schofield & Co. | Lub. | 2,800 | Philadel. |
| 18 | Vacuum Oil Co. | Lub. Oil and Gr. | 92,960 | New York |
| 20 | ,, | Lub. | 3,000 | ,, |
| 20 | ,, | ,, | 1,720 | ,, |
| 20 | ,, | ,, | 36,500 | ,, |
| 20 | Burnaby & Chantrell | Lub. Gr. | 2,070 | ,, |
| 20 | Fellows, Morton & Clayton | Lub. | 4,500 | ,, |
| 20 | D. Currie & Co. | Lub. Gr. | 440 | Hamburg |
| 20 | C. C. Wakefield & Co. | Lub. | 250 | ,, |
| 20 | C. W. Field | ,, | 560 | Antwerp |
| | Boston— | | | |
| 14 | W. F. Beaumont | ,, | 240 | Hamburg |
| | Bristol— | | | |
| 14 | Anglo-American Oil Co. | Lamp | 1,558,190 | New York |
| 15 | H. Pritchard & Co. | Lub. | 1,050 | Antwerp |
| 15 | First Anglo-Russian Oil Co. | Lub. Gr. | 110 | Hamburg |
| 17 | Pickford's | Lub. Oil and Gr. | 720 | ,, |
| | Cardiff— | | | |
| 15 | J. D. Thomas & Co. | Lub. Gr. | 170 | Rotterdam |
| | Goole— | | | |
| 14 | Goole Steamship Co. | Lub. | 50 | Hamburg |
| | Grimsby— | | | |
| 11 | J. Sutcliffe & Son | ,, | 650 | Antwerp |
| | Harwich— | | | |
| 13 | Great Eastern Railway | Lub. Gr. | 80 | Rotterdam |
| 13 | ,, ,, | Lub. | 450 | Antwerp |
| 16 | ,, ,, | ,, | 170 | ,, |
| | Hull— | | | |
| 14 | T. Wilson, Sons & Co. | ,, | 55,080 | New York |
| 15 | Wilson's & N. E. Railway | ,, | 920 | Hamburg |
| 15 | ,, ,, | ,, | 240 | ,, |
| 15 | ,, ,, | ,, | 240 | Antwerp |
| 17 | ,, ,, | ,, | 2,280 | ,, |
| 17 | ,, ,, | ,, | 280 | Hamburg |
| 17 | W. Gilyott & Co. | ,, | 8,840 | New York |
| | Manchester— | | | |
| 14 | Pickford's | ,, | 280 | Hamburg |
| 14 | British Petroleum Co. | Gas | 1,054,000 | Port Arthur |
| 14 | ,, ,, | Fuel | 223,500 | ,, |
| 14 | D. Currie & Co. | Lub. | 160 | Hamburg |
| 15 | Crew, Levick & Co. | ,, | 6,710 | Philadel. |
| 15 | ,, ,, | M. Colza | 1,690 | ,, |
| 15 | Bramwell, Fern & Co. | Lub. | 16,320 | ,, |
| 15 | Meade-King, Robinson & Co. | ,, | 23,600 | ,, |
| 15 | ,, ,, | ,, | 3,200 | New York |
| 15 | ,, ,, | ,, | 4,000 | Philadel. |
| 15 | Bramwell, Fern & Co. | ,, | 6,010 | ,, |
| 15 | Worthington & Boler | Turps. Sub. | 880 | ,, |
| 15 | D. Currie & Co. | Lub. | 2,800 | Hamburg |
| 16 | ,, | ,, | 280 | ,, |
| 16 | Wilson & Co. | ,, | 1,630 | Philadel. |
| 16 | Anglo-American Oil Co. | Lub. Oil and Gr. | 13,170 | ,, |
| 16 | Liverpool Storage Co. | Lub. | 5,560 | New York |
| 17 | Statter & Co. | Lub. Oil and Gr. | 2,260 | Philadel. |
| 20 | W. W. Jones, Dooly & Co. | Lub. Gr. | 3,600 | New York |
| | Newcastle— | | | |
| 16 | Tyne-Tees Steamship Co. | Lub. | 1,200 | Ghent |
| 16 | ,, ,, | ,, | 480 | Antwerp |
| | Newport— | | | |
| 15 | Bernassoni & Co. | ,, | 500 | Bordeaux |
| | Southampton— | | | |
| 15 | P. E. Curry | ,, | 150 | New York |
| | Sunderland— | | | |
| 17 | Anglo-American Oil Co. | Fuel | 497,890 | Port Arthur |
| | Glasgow— | | | |
| 14 | Anchor Line | Lub. | 33,120 | New York |
| 15 | Clyde Shipping Co. | Lub. Oil and Gr. | 2,950 | Antwerp |
| 20 | ,, | Lub. | 80 | Ghent |
| 20 | Anchor Line | ,, | 45,120 | New York |
| | Leith— | | | |
| 14 | G. V. Turnbull & Co. | ,, | 28,500 | Philadel. |
| 17 | Jas. Currie & Co. | ,, | 180 | Hamburg |
| 18 | ,, | ,, | 120 | ,, |
| | Belfast— | | | |
| 17 | J. Burke & Co. | ,, | 880 | New York |
| 17 | R. Barbour | Spirit | 1,320 | N. Orleans |
| 20 | J. C. Pinkerton & Co. | Lub. Gr. | 340 | Hamburg |
| 20 | ,, ,, | Lub. | 150 | ,, |
| | Dublin— | | | |
| 13 | P. Murphy & Co. | ,, | 60 | ,, |
| 15 | Anglo-American Oil Co. | Lamp | 720,000 | New York |
| | | | 8,545,890 | |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

**Event and Comment.**

THERE is an unmistakably healthy atmosphere at present pervading the oil industry, and what is of as great an importance is that this is reflected in regard to the feeling of investors toward practically all the leading classes of petroleum investments. During the past few weeks a decided change has taken place in connection with oil hare business on the Stock Exchange; oil has again ome into its own, and the public appear to be inspired with confidence as to the future. We have reason to believe that as time goes on this confident feeling will be even more pronounced, for everything points to here being marked activity in connection with the ormation and flotation of new companies in the near uture. It must not be forgotten, however, that while many new concerns whose future is full of promise will shortly make their appeal for public funds, there s at the moment a long list of excellent oil securities n the market, offering exceptional facilities to the nvestor for a certain and a very bulky return upon nvested capital. The hand of re-construction which wept over several Anglo-Russian concerns a year or wo ago has done its work well, and without exception he whole of those concerns are now enjoying the fruits f a carefully thought-out and well-managed policy.

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**The Russian Petroleum Company, Ltd.**

THE Russian Petroleum Company, Ltd., which was so successfully reconstructed by Mr. Herbert Allen and his associates in 1910, has now fairly entered upon an exceedingly prosperous career. In accordance with the olicy laid down by the board when the valuable properties reverted to the new company, an active drilling rogramme is being conducted upon plot No. 19 in the ibi Eybat field—one of the only two freehold plots n the district—and no less than five new wells are teadily proceeding to the oil sands, all of which are in he neighbourhood of 400 sagenes deep. One well—No. 92—has already touched the oil sands, and in the short space of one hour last Friday produced no less than 10,000 poods of oil, it being this new production which has increased the Company's crude oil output for the past week to the substantial and highly gratifying total of 135,000 poods. As must be obvious to the careful student of oil exploitation methods, progress in drilling at such depths is necessarily slow, and has to be carried out in a most careful manner. Shareholders must, therefore, possess their souls in patience for a few weeks, at the end of which time it is tolerably certain that the remarkable potentialities of the Russian Petroleum Company's properties will be far greater appreciated than is the case at the time of writing. Meanwhile it must be particularly gratifying to the Company's chairman and his colleagues, that owing to their untiring efforts, they have been the means of resuscitating British confidence in Anglo-Russian oil enterprises by laying down and carrying through a policy which has rescued one company from destruction and placed it in the forefront of well-conducted English oil concerns in the Russian fields.

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**The Anglo-Egyptian Oilfields, Ltd.**

HISTORY in oil has been rapidly made in Egypt during the past six months. Toward the end of last year—to be precise, on October 10th—when Sir Marcus Samuel, Bart., was addressing the shareholders of the Shell Transport and Trading Company, he spoke of the territory of the Anglo-Egyptian Oilfields, Ltd., as a disappointment, and though he did not say so in so many words, the clear inference was that the "Shell" had made a mistake. That Sir Marcus was premature in his criticism recent events have proved, for since the phenomenal strike in the Company's well No. 13 the production of crude oil seems to scarcely know any bounds. Let us give a few official details. When Sir Marcus spoke of the Egyptian field as a disappointment there was a weekly output of about 230 tons. From the first week in March last the production had increased to nearly 600 tons per week. At the commencement of April the output was almost 800 tons per week, but for the week ended the 11th ult., when the new well had been brought in, the weekly yield was placed at 3,500 tons. Last week's output exceeded 8,000 tons, and for the past few days, the yield may be placed at far over 10,000 tons weekly. The refinery, therefore, whose erection was more or less regretted, because there was not sufficient crude oil to enable it to continuously operate, in the face of the altered condition of things, becomes far too small to treat the enormous production, and we are not surprised to learn that its capacity is to be doubled as rapidly as possible. Egypt, therefore, with one leap has become the centre of world-wide attention, which is bound to considerably increase as time goes on.

### Next Year's Oil Exhibition.

From the report of the dinner given this week to the representatives of the standholders at the recent World's Oil Industries Exhibition, and which will be found upon other pages of this issue, it will be noted that so sanguine is the general organiser—Mr. G. D. Smith—both of the future of oil and the ability of those interested in it to support him in another enterprise, that he has already decided to arrange for an International Oil Exhibition in London next year. With this end in view, he has secured an option upon several of the halls which formed a portion of the buildings utilised for the Franco-British Exhibition some six years ago, which buildings adjoin the various railway stations in Uxbridge Road, Shepherd's Bush. From the opinions expressed at Monday's informal gathering, it would appear that other buildings in the metropolis are viewed with greater favour than the venue of next year's Exhibition, but from an inspection of the several halls which we made this week, we are forced to the conclusion that they are in every respect eminently suited to the requirements of a serious trade exhibition, and are even more accessible to the centre of London than any of the other great halls so frequently utilised for exposition purposes. Evidently Mr. Smith is determined to leave no stone unturned in his desire to make next year's show far more comprehensive than the one recently concluded, for in a few weeks' time he leaves for the United States, and on his return will visit practically all the oil-producing countries on the Continent.

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**APPOINTMENTS:**

*Applications are invited for the following appointments :—*

ENGINEER with first-class oilfield experience and knowledge of Russian wanted as Plot Manager. Age not over 35. Salary about £600/750 p.a.

YOUNG 'Varsity Man (Cambridge or Birmingham preferred) with Engineering and Geology degree required by important Oil Company. Age 23/26.

COST Accountant wanted with first-class experience of the American System of Costing as applied to petroleum. Age 30/40. Salary about £800 p.a.

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*Employment Specialists,*
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No fee charged unless position secured.

## PRODUCTION OF ENGLISH COMPANIE IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended April 25th was 135,00 poods.

Spies Petroleum Company, Ltd. — The production for week ended April 26th was 285,33 poods, or about 4,602 tons. The total production fo the year from January 14th to April 26th wa 4,244,155 poods, or about 68,454 tons. The tota production for the corresponding period last yea was 4,344,513 poods, or about 70,073 tons. Price o crude oil at Baku is now 39½ copecs per pood.

Maikop Victory Oil Company, Ltd. — Th production of crude oil for week ended April 25t was 22,713 poods, or 366 tons.

European Oilfields Corporation, Ltd. — Th production for the week ended April 26th wa 113,700 poods, or 1,833 tons.

Baku Russian Petroleum Company, Ltd.—Th production for the week ended April 27th wa 120,000 poods.

Black Sea Oil Fields, Ltd.—The productio of this company for the week ended April 25th wa 19,555 poods (315 tons).

Maikop New Producers, Ltd.—Production fo week ended April 25th was 6,900 poods (111 tons).

British Maikop Oil Company, Ltd.—Productio for week ended April 26th was 11,264 poods, o 182 tons.

New Schibaieff Petroleum Company, Ltd.— Gross production for week ended April 25t 97,774 poods, or 1,577 tons.

North Caucasian Oil Fields, Ltd.—The tota production for week ended April 28th wa 420,659 poods, or 6,784 tons. Corresponding period las year, 2,121 tons.

Bibi-Eibat Oil Company, Ltd.—Production fo the week ended April 26th was 87,400 poods, o 1,410 tons.

Maikop Midland.—Production at Krimskaya fo week ended April 25th was 6,860 poods, or 111 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended April 25th was 17,68 poods (285 tons).

Shagirt (Cheleken) Oil.—Estimated productio of crude oil for week ended April 25th was 94 poods (15 tons).

Levanovskoe Petroleum Company, Ltd.— Production of crude oil for week ended April 25t was 2,200 poods, or 35 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended April 28th 209,000 poods, o 3,371 tons.

Cheleken Oilfields, Ltd.—Estimated productio for the fortnight ended April 25th, 1,715 tons.

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# SIR BOVERTON REDWOOD, BART.

## A FAMOUS SCIENTIST CELEBRATES HIS SIXTY-NINTH BIRTHDAY.

In the name of all those associated with the petroleum idustry throughout the world, the Review extends to ir Boverton Redwood, Bart., the well-known chemist nd petroleum scientist, its hearty and sincere conratulations upon the completion of his sixty-eighth ear.

Probably no gentleman is more widely known or espected to a greater degree in the realm of petroleum an Sir Boverton, ho, in spite of his dvancing years, is to e found at his offices i Bishopsgate Street very day attending his numerous and rowing professional uties.

Born in 1846, the rofessional career of ie subject of our cetch almost coindes exactly with the ommercial developent of the petroleum idustry, with which ir Boverton's name ill ever be associated. was at the Uniersity College School iat the foundation as laid of his scienfic education, and it as not unnatural, ving regard to the ct that his father as Professor of hemistry to the harmaceutical Soety, that he took a en interest in all at related to science, or is it surprising at, upon leaving hool, he went to the boratory of the Pharmaceutical Society, there to study emistry under his father, Dr. Theophilus Redwood.

In 1869 Mr. Boverton Redwood—as he then was—came analytical chemist to the Petroleum Association, id from that day to the present his whole life and ul have been wrapped up in the study of petroleum id its allied industry. As far back as 1872 he gave idence before a Select Committee of the House of rds on the testing of petroleum, was consulted by e Government on the subject of petroleum legislation 1876 and 1877, became associated with the late r Frederick Abel in the experimental investigation hich led to the adoption of the present legal test for troleum, and then commenced tours of inspection to actically all the known oilfields of the world.

Sir Boverton Redwood, Bart.

In 1886 the important question of the viscosity of petroleum products engaged Sir Boverton's attention, and as the outcome of much thought and energy in the direction of the standardisation of its procedure, the useful instrument known to-day all over the world as the Redwood viscometer was invented.

In the limited space of this page it is impossible to do more than single out but a few of the more important matters which have engaged the attention of Sir Boverton Redwood during his long and active professional career. He is Adviser on Petroleum to the Admiralty, and in this connection has for years striven to obtain the recognition of the value of oil fuel for the Royal Navy; and as Sir Boverton remarked to us one day this week, seeing the whole-hearted manner in which the Admiralty has now taken up the question, he feels that, had he done nothing else, then his life's work would have been far from having been in vain. Sir Boverton (who was knighted in 1905) is also Consulting Adviser to the Corporation of London under the Petroleum Acts and Adviser on Petroleum Transport to the Port of London Authority, in addition to which he occupies many important posts in connection with learned societies and petroleum enterprises.

Sir Boverton has always appreciated the need for scientific training in connection with the petroleum industry, and it is a constant source of pleasure to him to have been enabled to take part in the provision of the practical facilities now brought into the curriculum at the Birmingham University and the Imperial College of Science and Technology in London.

One of his latest achievements toward the same end has been the formation of the Institute of Petroleum Technologists in London, of which organisation Sir Boverton is the first president.

We would again extend our heartiest congratulations to Sir Boverton Redwood, Bart., and at the same time express the hope that he may be spared many years to still be directly associated with the great industry of petroleum, to the uplifting of which he has done so much. *Fortuna sequatur.*

# MISCELLANEA.

## THE PETROLEUM SECTION OF THE LONDON CHAMBER OF COMMERCE.

We are requested to announce that on Tuesday next, at 2.30, there will be a meeting of the organising committee appointed at the recent meeting of those interested in the petroleum and allied trades, under the auspices of the London Chamber of Commerce. The meeting will be held at the Chamber's offices, Oxford Court, Cannon Street, and an important agenda will be down for consideration. A large attendance of members of the committee is desired.

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## THE SAFETY OF MEXICAN OIL PROPERTIES.

On Wednesday, in the House of Commons, Sir J. D. Rees asked the Secretary for Foreign Affairs whether any damage had been done to the property of British oil companies at or in the neighbourhood of Tampico; and whether the United States Government had been asked to safeguard such interests.

Mr. Acland: I have received no information that the property of British oil companies has been damaged at or near Tampico; for the answer to the second part of his question I refer the honourable Member to the answer given to his question of April 14th. No further representations have been made to the United States Government on this subject.

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## AN INTERESTING OILWELL MACHINERY CATALOGUE.

We have received a copy of a new catalogue just issued by Messrs. Gillespie & Co., 2, Whittington Avenue, London, E.C., which deals with a few of the firm's chief specialities in oilfield supplies, but more particularly with the "Johnston" rotary drilling machines, for which Messrs. Gillespie are the sole selling agents for European countries and the British Colonies. The catalogue, which runs to over forty pages, is particularly well designed, while the binding and general appearance of the whole is both unique and striking. The main machinery and tools forming the chief parts of a "Johnston" rotary rig are described and illustrated, together with details of the "Star" portable machinery, etc., but Messrs. Gillespie point out that upon request they will be pleased to forward complete catalogues of the respective systems. As is known, Messrs. Gillespie are the oldest established firm of oilwell supply specialists in Great Britain, but during recent years they have been devoting themselves largely to the introduction of the rotary system of boring.

## SITUATION WANTED.

Required, position as Refinery Chemist or Works Manager. Twelve years' experience in the fractionation and refining of oils, and for the past three-and-a-half years refining Roumanian oils. Used to bulk oil storage and competent to control plant, labour and products. First-class references. Age 34. Write "Chemist," c/o Review offices.

## GROSNY PETROLEUM PRODUCTION DURING MARCH.

The production on the Grosny oilfields durin March amounted to 7,103,000 poods of baled oil an 599,000 poods of spouted oil obtained on the old area and to 439,000 poods of baled oil and 233,000 poods spouted oil obtained on the new areas.

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## OIL TANKER CASUALITIES.

The Review regrets to state that last Monday th Russian oil tanker "Kometa," while on a voyage fro Constantza to Rouen, took fire and exploded when som twenty miles west of Algiers. The tanker became total wreck and sank within a few hours. A part the crew were saved, but at the time of going to pres fifteen persons are missing.

The "San Jeronimo," while passing through th Suez Canal last Monday on a voyage (on Admiralt charter) from Borneo to Portsmouth, got ashore an sustained slight damage to one or two side-plates. Th tanker, however, continued her journey to Englan there being no damage to cargo nor any danger.

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## THE NORTH CAUCASIAN OILFIELDS, LTD

At a meeting of the Board held this day it wa resolved to recommend to the shareholders at th annual general meeting to be held on Wednesday May 20th, 1914, that a final dividend of 2s. pe share, less income tax, be paid on the ordinary share making a total distribution of 25 per cent. (2s. 6d.) o these shares for the year 1913.

The transfer registers will be closed from the 11t to the 20th May inclusive.

By Order of the Board,
W. A. TURNER,
Secretary.

*Note.*—Ordinary shares allotted in exchang for debentures before May 11th will partici pate in this dividend.

St. Helen's Court, E.C.,
April 30th, 1914.

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# THE RECENT OIL EXHIBITION.

## DINNER TO EXHIBITORS' REPRESENTATIVES AT THE HOLBORN RESTAURANT.

In order to celebrate the close of the recent World's Oil Industries Exhibition, Mr. G. D. Smith, the general organiser, entertained the representatives of the exhibitors to a complimentary dinner at the Holborn Restaurant last Monday evening.

Mr. G. D. Smith presided and was supported by Mr. John Wells (consulting engineer), Mr. H. Abbott (the E. W. Bliss Company), Mr. John Cates (publicity manager for the British Petroleum Company), Mr. W. F. Macdonald (Holland Drilling Company), Mr. J. Gee (Messrs. J. Rhodes & Son, Wakefield), Mr. F. Catling, Mr. E. W. Delacour (publicity manager of the Anglo-Mexican Petroleum Products Company, Ltd.), and others.

At the interesting post prandial proceedings, the chairman expressed his thanks to the company for having accepted his invitation to be present that evening. He desired to also express his thanks to the whole of the exhibitors—many of whom were unable to be present that evening—for the great assistance they had given him in organising and carrying through such a successful exhibition. The illuminated address which they saw that evening, and to which many of them had subscribed, was in itself a tribute to himself, and showed that his efforts had been appreciated in a marked degree, for he could assure them that though he had had other illuminated addresses presented to him, that was the first occasion upon which the feeling of friendship between exhibitors and organiser had grown so strong as to permit of the presentation of such a beautiful work of art. When in that room many months ago, the suggestion for the holding of the recent Exhibition was agreed to, he then told them that he would put his best work into it in the hope of receiving the cordial support of those numerous firms associated with the oil industry, and that evening—looking back upon the Exhibition which three weeks ago closed its doors—he could of a truth say that he had done his best, and he was glad to see it had been appreciated. Someone has suggested that a guarantee fund should be forthcoming for such an exhibition, but he did not wish guarantee funds. He had reason to believe a really good show for the oil industry would supply a want and fill a gap, and so he decided to go forward with the enterprise. He could only say that the results of his efforts would be seen to better advantage in succeeding shows. Now that a start had been made, he was convinced that each succeeding exhibition would grow in importance, in merit, and in size. Without a doubt exhibitions were a good thing to stimulate trade in general, and though he could not claim to be an oil man, he knew sufficient of the importance of oil as to warrant his belief that he had laid the foundations for some really comprehensive and internationally important shows in the future.

Being under the impression, therefore, that there was room for another exhibition in connection with the oil industry upon a much larger and broader scale, he had secured an option upon three large halls at Shepherd's Bush which formed part of the Great Exhibition buildings known as White City, and he could exercise that option for the holding of an Oil Exhibition either in April or October next year. The buildings which he had secured were eminently suitable for such a show, inasmuch as there was one large hall with a concrete floor, and which would be reserved for the exhibition of machinery. He recognised the fact that the oil industry was so closely allied to that of engineering that without a thoroughly good working machinery section, the exhibition would lack in its comprehensive character. Therefore his great desire had been not only to secure space sufficient for ordinary exhibits, but to be in a position to have a large hall wherein machinery in motion could be exhibited, while in addition he had not overlooked the importance of outside displays, such as drilling. He regretted that it had not been possible to have demonstrations of drilling in the grounds of the recent exhibition, but the fault had not been his, for he had taken every possible precaution to ensure this, and had, in fact, entered into a strict bond that the various authorities concerned should not offer objection to the scheme. However, in the future it was an assured fact that there would be, not only one enterprising firm demonstrating drilling in the grounds, but several, and he was convinced that this section of any future exhibition would be particularly important.

Mr. Smith then asked for suggestions respecting a future exhibition and for an expression of opinion as to the suitability of the buildings he had mentioned.

Mr. John Wells said he thought the whole of the recent exhibitors were more or less in accord with what Mr. Smith had said as to future exhibitions. There was no doubt that an exhibition in which the oil trade as a whole took an interest would be of great service to everybody connected with oil, for it would largely be a matter of education to those associated with oil companies to see the various classes of machinery, etc., so largely used on the fields. Then there were many branches which could usefully be brought into an exhibition. There was shale oil, for instance, and, in addition, there was more than ordinary room for the products from coal. To his mind, the oil products obtained from the solid deposits were to-day equally as important as the products obtained from spouting oil wells. The speaker thought they ought to accord to Mr. Smith their best thanks as a mark of their appreciation of his efforts at the last Exhibition.

Mr. H. Abbott (E. W. Bliss Company) was inclined to favour Olympia as the place for another Oil Exhibition. He was, however, pleased to hear from Mr. Smith that in any future exhibitions greater attention would be paid to the condition of the floor for machinery in motion, but a matter of as great an importance was that of the provision of suitable current for electric power purposes. The arrangement at Earl's Court had been the means of causing endless trouble to exhibitors who desired the necessary electric power.

Mr. John Cates, while speaking unofficially, expressed his opinion as to the suitability of Olympia for future exhibitions. He was pleased to hear that the past Exhibition had been a success, but he had reason to believe that when Oil Exhibitions became thoroughly established undertakings they would materially grow in size and importance.

Mr. Smith at this juncture explained that it was impossible to obtain Olympia next year excepting during the month of August—and he regarded that month as most unsuitable owing to holidays. If other trades all found that August was not an opportune time for holding an exhibition, they could all take it that there was some real reason for not having an exhibition that month. Then there was evidently some misapprehension as to the position of the buildings upon which he had secured an option at Shepherd's Bush. They had not to be mixed up with the various halls scattered through the grounds at White City and which were in close proximity to the exhibition entrance in Wood Lane. The three halls which he suggested for next year's exhibition were those running immediately from the White City entrance in Uxbridge Road, and adjoining the Shepherd's Bush tube station, the Metropolitan station, and the South London Extension Railway station at Uxbridge Road. He had already held some very successful trade exhibitions there, and the buildings were in every way suitable, there being none of the objections to them which Mr. Abbott had imagined. Then, too, they were far more accessible from the centre of London than either Olympia or Earl's Court.

Mr. E. W. Delacour said that having regard to the experimental character of the Exhibition as being the first organised for the oil industry, Mr. Smith was to be congratulated on the measure of success achieved. He associated himself with previous speakers in preferring Olympia as the venue for any further exhibitions, which, in view of the serious and conservative character of the oil business, was more suitable.

Mr. Gee (Messrs. Rhodes & Son) in the course of a few remarks said he thought the venue of the recent exhibition was quite suitable for a future exhibition if it were capable of some extension. There was no doubt that, seeing the great advance which had been made in the recent show compared with the initial effort at Olympia in 1912, future exhibitions would be upon a very large scale if the past rate of progress were kept up. He thought all would agree that Mr. Smith had done his level best for all exhibitors, and as one he desired to personally express his thanks for the courtesy he had received.

Mr. A. Lidgett expressed regret at the absence of his principal—Dr. Dvorkovitz—that evening, and hoped that in succeeding exhibitions the importance of having a thoroughly representative machinery section would not be overlooked, even by the makers of oilfield machinery themselves, for there was no doubt that those who had given their support to the recent exhibition had had no cause for complaint.

Several other gentlemen spoke, after which a hearty vote of thanks to Mr. Smith for his hospitality concluded a pleasant meeting, the company rising and singing "For he's a jolly good fellow."

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# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production, week to April 25th, 204 tons.

**Maikop Pipeline and Transport Company, Ltd.**—Received for pumping, week to April 26th, 65,016 poods (1,049 tons).

**Maisels Petroleum Trust, Ltd.**—The manager writes : "Bordeni No. 2 producing 20 tons daily ; great pressure sand and gas. Cleaning."

**United British of Trinidad.**—Production, week ended 24th April, 1,000 tons. Well No. 25 produced 150 tons. Well No. 42 produced 450 tons.

**Traian Roumanian Petroleum Company, Ltd.**—Production, week to April 25th, 411 tons. Roumanian Easter holidays interfered with work.

**Maikop Premier.** — New well No. 7 : 940 ft. ; increase, 56 ft. Several stoppages during the week repairing steam engines and cleaning wells. Easter holidays interfered generally with production.

**Russian Petroleum Company, Ltd.**—The increase in the week's production (recorded elsewhere) is due to the oil obtained from well No. 92 (2,912 ft.). This well spouted for one hour on Friday night, producing 10,000 poods. Cleaning operations continue, and in order to facilitate this work a boring rig has been installed.

**Anglo-Egyptian Oilfields, Ltd.**—Telegram from Gemsah advises that the gravity of oil from well No. 13 is 0.969. Office note : "It has been assumed by us that the gradually increasing specific gravity of the oil is due to a corresponding increase in the quantity of water contained in it, but, as the present gravity would represent such a large proportion of water on this assumption, we are telegraphing to ascertain the exact position." Further telegram received yesterday from Gemsah : "Well No. 13 production saved yesterday 475 tons oil specific gravity emulsion 970 at 62° Fahr."

**Roumanian Consolidated Petroleum Company, Ltd.**—Production, week to April 25th, 847 tons. Cable from Ploesti. April 27th :—"Moreni well No. 30 : extracted 729 metres of drill stem, and are now lowering new string. When this reaches bottom we shall make the well produce through it. All preparations for big flow completed. We have applied for thirty new well sites and have room for more. Derrick for well No. 29 (to be deepened forthwith to new fountain source) is now being erected." Office note :—"Decrease in production due to temporary interruption of well No. 30, and also to well No. 26 being simultaneously out of action."

**Algerian Oilfields, Ltd.**—In a circular, the directors state that the boring at the Abd-er-Rahim well reached a depth of 902 metres, when, owing to faulty sections of the column, the casing parted. Fortunately, owing to the soft formation recently entered, the well remains undamaged, but it was impossible to continue drilling with the present 9-in. column. The directors have, therefore, given instructions to suspend operations here for the time being ; in the meantime they have leased part of the Messila area, of about 250 hectares, also a portion of the Medjilla area, of about 100 hectares, on a royalty basis. Drilling was started by the tributer at the Messila well on March 14th, the latest news being :—Depth, 167.10 metres ; strong gas and good show of oil.

*Published April 27th, 1914.*

**NOW READY.**

**FIFTH ANNUAL ISSUE.**

*The Standard Reference Work on Oil.*

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# COMPANY REPORTS AND MEETINGS.

## BLACK SEA OIL FIELDS, LTD.

### Two New Plots Acquired in Shirvanskaia.

The quarterly report of the Black Sea Oil Fields, Ltd., to 31st March (old style) states that for the quarter ended 31st December (old style) the production was 328,982 poods, and for the quarter ended 31st March (old style), 280,477 poods.

The negotiations for acquiring an interest in the heavy oil area situated to the north-east of the company's plots in Shirvanskaia have been completed, and the company has acquired on a royalty basis the lease of two plots in this area. In one case, where a certain amount of development work had already been carried out, a small cash payment has also been made. Since obtaining possession of these plots operations have been actively conducted. Two wells have been started on one of the plots. These wells are now 518 ft. and 152 ft. deep, respectively. A well on the other plot has reached a depth of 612 ft.

*Neftianaia.*—Drilling operations are still temporarily suspended in this district.

*Khadijinskaia.*—The co-operative well on plot 120 has now reached a depth of 1,883 ft. The repairing operations in the well of the Maikop Deep Drilling Company on plot 108 (which adjoins plot 120, and where oil was struck at 2,263 ft.) are not yet finished.

*Refinery.*—Since the extraordinary general meeting held on March 10th last, the agreement for the sale of the company's refinery has been completed, and the deposit received.

The price of crude oil at Ekaterinodar is now 50 copecs per pood.

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## THE LOBITOS OILFIELDS, LTD.

The directors of the Lobitos Oilfields, Ltd., recommend a final dividend of 5 per cent., less income tax, on account of profits for 1913, making 10 per cent. for the year, and a bonus of 5 per cent., placing £40,000 to reserve and carrying forward £16,800.

◆

## THE PACIFIC OILFIELDS, LTD.

The report of the Pacific Oilfields, Ltd., to be presented to the meeting next Thursday, covers the year ended 31st December, 1913, and states that nothing was done on the Dorn property (about 138 acres) or in its neighbourhood during the year. The suit brought by the refinery against the company for non-delivery of oil was decided by an award of $1 damages, in addition to which the refinery was allowed to retain without payment oil to the value of $2,383. In accordance with the policy outlined last year no new wells were drilled on the McCabe property (about 298 acres) in 1913. The production of existing wells after being treated in the dehydrating plant was delivered to buyers under current sale contract. Deliveries of 27,525 barrels of oil were made during 1913, making the total deliveries from this property to 31st December, 1913, 193,834 barrels. The high percentage of emulsified oil again impaired the production and increased the cost of merchantable oil. At the end of the year the remaining obligation to deliver to buyers under contract was only about 6,000 barrels, and on its fulfilment the operating of this property will be discontinued as it has proved unremunerative under existing market conditions. No drilling operations were undertaken on the Underhill and Jones properties (about 5,440 acres), as the development work initiated by others in the neighbourhood has not as yet afforded guidance of any value. The production and consumption of petroleum in California have continued to expand during 1913, but prices have remained unremunerative to producers generally, so the directors see no sufficient inducement to depart from the policy adopted last year — namely, that of refraining from undertaking further development work.

◆

## THE RUSSIAN PETROLEUM COMPANY, LTD.

The Russian Petroleum Company announce that warrants for four years' interest to May 1st, 1914, at 6 per cent. per annum (in all £72,000), have been posted to the holders of the £300,000 first charge convertible debentures. Henceforward the entire service for interest and redemption will involve a charge of £33,000 per annum, and after such redemption is completed the entire net profits will be available for distribution.

Referring to the policy of the directors of deep boring to the 400-420 sagene (2,800 ft.-2,940 ft.) source, the latest advices from Baku show that of the five wells now being deepened Well No. 92, at a depth of 2,912 ft., has reached the oil source. The pressure of gas has caused a heavy cork to form in the well, and it has been necessary io install the boring rig to facilitate the work of cleaning the cork. Some oil has already been obtained from this well, and on the 24th inst. it spouted for an hour, giving 10,000 poods (160 tons). Advices from the Baku office state that there is no water in the well. To obviate the risks inseparable from an eruption it has been decided to lower a preservative column of 10-in. casing. This work has already been put in hand, and it is estimated that it will be completed in a month's time. Well No. 89 at a depth of 2,919 ft., No. 81 at 2,835 ft., and No. 63 at 2,625 ft., passed through grey sand. These three wells are showing the same satisfactory indications as No. 92. Careful cementation has been carried out in each well to shut off the water, and drilling is now in active progress. In No. 94, at 2,506 ft., cementation was successfully carried out and 14-in. casing is being lowered prior to deepening.

It is intended to hold the annual general meeting about the end of June or beginning of July.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/3-12/3 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 22/0-23/0 |
| 5% Debentures ... ... | 600.000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 5/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-6/6 |
| European Oilfields ... ... | 319.181 | 10/- | 6/6-7/0 |
| Lobitos Oilfields, Ltd. .. | 400,000 | £1 | 33/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 46/9-47/3 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{15}{16}$-1$\frac{1}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 25/9-26/9 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 5/3-5/9 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{3}{16}$-1$\frac{5}{16}$ |
| ,, ,, Ord... | 690,000 | fully pd. | 13/0-14/0 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5$\frac{1}{8}$-5$\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{1}{2}$-10$\frac{3}{4}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/9-23/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 637 | 640 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 255 | 257 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,150 | 19,250 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 985 | 987 |
| Russian Naphtha Society ... ... | 100 | 193 | 194 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 193 | 194 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 29/9 |
| ,, 6% Cum. Pref. | 100,000 | £10 | 11$\frac{1}{4}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 91/6 |
| ,, Pref. ... ... ... | 250,000 | £1 | 27/6 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| ,, 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 39/0 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 31/6 |
| ,, Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 5/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 86/6 |
| ,, 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 15/3 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 56/9 |
| ,, "B" Deb. ... | 160,000 | £100 | £152 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| ,, ,, ,, ,, Pref. ... | ,, | 181 |
| Royal Dutch Petroleum Co. ... ... ... | ,, | 601$\frac{3}{4}$ |
| Moeara Enim Petroleum Maatschappij ... | ,, | 234 |
| Perlak Petroleum Maatschappij ... ... | ,, | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | ,, | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | ,, | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | ,, | 123 |

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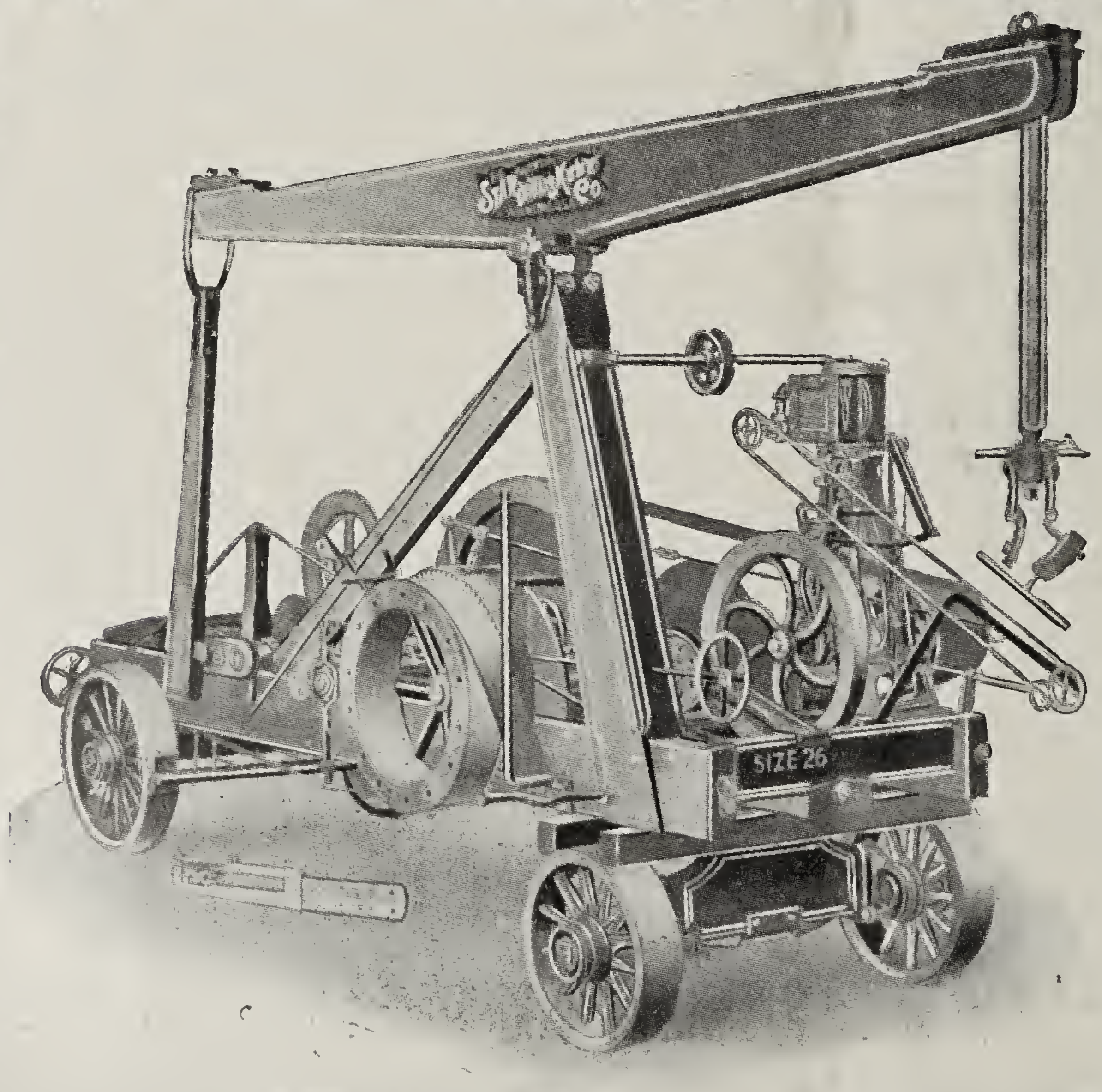

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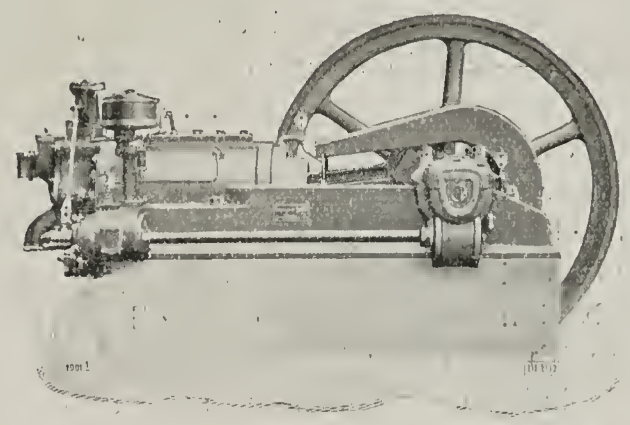

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, May 2, 1914.

## THE IMPORTANCE OF THE SHALE OIL INDUSTRY.

THE suggestion which fell from the lips of Mr. John Wells at the informal meeting the other day in London, held in connection with the recent Oil Exhibition, as to the importance which to-day attaches to the question of operating shales for their liquid oil contents—and which will become even more important as time goes on—is a subject which calls for the serious consideration of all who have the future well-being of the petroleum industry at heart.

During the past few years—since the consumption of petroleum products commenced to have such a direct bearing upon the question of power, both for industrial and naval purposes—one has frequently heard the argument put forth in all seriousness as to the possible dearth of adequate supply, and there is not the slightest doubt that this oft-repeated prophecy—which has called for the appointment of governmental and other committees to consider the subject in all its varied aspects—has done much to check the progress which would otherwise have been recorded in connection with the extending use of petroleum products, primarily for power purposes.

One need not be told that the same bounteous Providence which has cast in so many places of the earth such rich deposits of liquid oil for the use of man, has with a no less lavish hand also spread vast stores of shales over enormous areas; yet while in regard to unearthing the stores of liquid oil many millions of pounds of capital are to-day remuneratively invested, and the production of 50,000,000 tons of oil took place last year in the various producing fields, it is a strange but nevertheless true fact that there have been but comparatively few serious efforts set on foot for the utilisation of the oil shale deposits.

The reason may not be far to seek, for while on the one hand the oil is brought to the surface in a state ready for refining—and in some cases it can be used without any such treatment—in the other costly plant must perforce be installed after the shale is brought to the surface, and generally an outlay of capital is required such as is not usually at liberty in the case of those concerns who set out to seek liquid oil. The ultimate profits to be derived from the commercial exploitation of oil shale deposits are, of course, upon a very liberal scale, for apart from the resulting high-class liquid oils, the various by-products, such as sulphate of ammonia, command such prices which would in many cases cause the producer of liquid oil from the ground to turn pale with envy.

But this by the way. We have sufficient evidence from a glance at the progress and profits made by the several companies operating in the Midlothian shale localities to prove that the commercial operation of oil shales is attended with most remunerative results, to convince the most sceptical that the development of the various oil shale deposits in the world is a proposition well worthy of most serious attention.

As we have already suggested, these oil shales are scattered throughout many countries in a most liberal manner, and though, perhaps, it is not for the REVIEW to pose as a prophet as to the respective claims of the more known fields, we feel it is our duty to point them out to those who desire to be directly associated with the petroleum industry's expansion in the future.

At home, not only have we the already developed Scottish shale areas, but recent discoveries have proved the location of others not less rich in the north of Scotland, and in various counties of England, which, with up-to-date methods of destructive distillation, should amply repay commercial development. Then in Canada, which Dominion is in sore need of home supplies of oil, the oil shales are prolific and widespread, and without the slightest doubt fortunes await the enterprise of British capital, which will be welcomed, and backed up with a bounty on production by the Canadian government.

The Australian shale industry undoubtedly experienced a serious set-back by the unfortunate circumstances which overtook the Commonwealth Oil Corporation, but even in this case, the disaster was not that remunerative qualities of oil shale were not found, but that these were so extensive, and so rich in liquid contents, that the Corporation, after laying down the basis for a gigantic programme, found itself without the necessary capital to take advantage of its undisputed wealth of land assets. It can now be taken for granted that the Australian oil shale industry will in the long run thrive to a remarkable degree, and though the pioneer concerns may not come in for their due reward, this will certainly be reaped by others who go forward with sufficient capital to achieve the ultimate ends in view. Australia can with the proper development of its oil shales be entirely independent of imported petroleums.

As to South Africa, our readers are aware of the efforts which have been put forward in the hope of establishing a branch of oil production there, and though these have not been of that success anticipated, it has been proved that though, in the words of a geologist, "the chances for finding large quantities of liquid oil are remote," South Africa has a wealth of oil shale which will doubtless in due time be seriously exploited.

We have no desire to labour the point in regard to the future importance of the exploitations of oil shale, but we are in total accord with Mr. John Wells, when he says that in the future the significance of the oil shale industry will be little less important than that of the extraction of liquid oil from the bowels of the earth by means of boring.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO APRIL 27th, 1914.

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IN GALLONS.

| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. | Since Apl. 20. | From Jan. 1. |
| Belgium .. | — | — | 9,240 | 200.670 | — | — | — | — | — | 32,220 | — | — | — | 1,350 | 9.240 | 234.240 |
| Canada .. | — | — | — | 4,400 | 5,350 | 41,980 | — | — | — | — | — | — | — | — | 5,350 | 46.380 |
| Dutch Indies | — | — | — | — | — | — | — | — | 793,130 | 16,729,200 | — | 83,400 | — | 1,754,100 | 793,130 | 18,566 700 |
| Germany .. | 4,200 | 29,250 | 23,330 | 735 650 | — | — | — | — | — | — | — | — | — | — | 27,530 | 764 900 |
| Holland .. | — | — | 320 | 3,250 | — | — | — | 55,000 | — | 2,869,180 | — | — | — | 590 | 320 | 2,928,020 |
| Mexico .. | — | 2,242,970 | — | 11,800 | — | — | — | — | — | 754,170 | — | 2,332,310 | — | — | — | 5,341,250 |
| Roumania .. | 4,120 | 6,388,610 | — | — | — | 875,000 | — | — | 225,370 | 1,410,250 | — | 1,207,910 | — | — | 229,490 | 9.881.770 |
| Russia .. | — | 2,036,460 | 9,880 | 1,707,500 | — | — | — | — | 1,144,000 | 6,271,880 | — | — | 630 | 630 | 1,154,510 | 10.016.470 |
| U.S.A. .. | 2,579,790 | 33,430,020 | 642,500 | 15,163,190 | 13,280 | 91,270 | 3,427,000 | 26,166,910 | 2,888,770 | 5,490.500 | 717,850 | 3,917,530 | 2,720 | 213,030 | 10,271,910 | 84,464,050 |
| Other Countries | 3,770 | 3,770 | 1,190 | 126,480 | — | — | 1,460 | 1,460 | — | 210 | — | 4,150 | — | — | 6,420 | 136,070 |
| | 2,591,880 | 44,131,080 | 686,460 | 17,952,940 | 18,630 | 1,008,250 | 3,428,460 | 26,223,370 | 5,051,270 | 33,557,610 | 717,850 | 7,545,300 | 3,350 | 1.969,700 | 12,497,900 | 132,379,850 |

# AMERICAN AND ROUMANIAN NOTES.

## AMERICAN.

**The Oklahoma Petroleum Company** is the title of a new concern which has recently been incorporated with a capital stock of $1,200,000 to operate in Neosho county, Kansas.

**The Magnolia Petroleum Company.**—At a recent meeting of stockholders it was decided that the Magnolia Petroleum Company should increase its capital stock to the extent of $4,900,000.

**The Texas Company** is expanding its domestic business, especially along the Atlantic Coast, and stations are being established at Greenville (N.C.), Valdosta (Ga.), and Norwalk (Conn.).

**To Drill in Lake Erie.**—There are several important tests to be made during the coming summer on the small islands in Lake Erie in order to reach the oil deposits which are supposed to abound there. The Canadian Government will probably drill a number of wells itself upon its own territory.

**Developments in Shackleford County.**—A strong effort is being made, says a writer in the *Oil Paint and Drug Reporter*, to find a productive field or to broaden the present oil development in Shackleford county, and among other active operators, the Producers Oil Company is sinking four wells.

**The Standard's New Gas Well.**—The Standard Oil Company has brought in a gas well upon its Emery lease in the La Habra field, California, which is producing 4,000,000 cubic ft. of gas daily. This gas now supplies all the power necessary for field operations and for the working of the El Segunda refinery.

**Lima Statistics.**—The total oil runs from the Lima fields during March amounted to 236,771 barrels, and the total delivered to 374,071 barrels, while the oil in stock at the end of the month amounted to just under 2,000,000 barrels. The stocks of oil for the corresponding month a year ago were over 3,250,000 barrels.

**The Associated Company.**—This important concern, in a circular just issued, stated that at the present time it has 381 wells which are shut down, and which represent about 4,000 barrels per day production. At the commencement of the present year the company had over eight and a-half million barrels of oil in store.

**The Vinton Field.**—Work is being pushed forward vigorously in the Vinton field, where the monster Vinton Petroleum Company's well recently started off with 13,000 barrels production per day. The well has now settled down to a daily yield of 8,000 barrels. Outside this gusher, the Vinton field is producing 3,000 barrels daily.

**Producers Build Storage.**—The largest oil producers in the Cushing district are actively engaged in erecting immense storages to take care of the new production. Several of the companies have secured from the State Corporation Commission exemption from the provisions of the State laws, which require that all pipelines shall be common carriers.

**The Louisiana Fields.**—During the past few weeks development work in the Louisiana fields has been seriously retarded owing to heavy rains, which have made the roads in such a condition that the transport of oilfield supplies has been almost out of the question. The De Soto district has suffered to the greatest extent in this respect.

**The Panhandle Field.**—This young oilfield is being quickly developed. The Wichita Falls district, while only three years old, has close upon 1,100 completed wells, with a production of approximately 28,000 barrels daily. In the Panhandle field the oil sands are found at depths ranging from 60 to 3,000 ft., but the shallow sands only produce small wells.

**Increasing the Production of Gasoline.**—The Purity Gasoline Company has sold its plant on the Rice Ranch Oil Company's property in the Santa Maria field to the latter concern, which s to increase the plant's capacity by the addition of another 80 horse-power unit. The company also intends to enlarge the plant by nstalling two more units, so that the full capacity will be of handling 2,500,000 ft. of casing-head gas per day.

**Illinois News.**—There is considerable activity in the Illinois ields, and during the past few weeks matters have received an impetus by the bringing in of the well on the Murphy tract, which is about a mile ahead of the present limits of production in Lawrence county. The well was drilled upon ground classed as worthless; it nevertheless is producing 150 barrels per hour from a depth of 1,800 ft., and is thus the largest well found in the State for a few years.

**The General Petroleum Company.**—This company has issued a statement of its operations for the past year. From this it appears that the crude oil production from the company's properties during the twelve months amounted to 3,679,000 barrels, or a daily average output of 11,000 barrels. The company has now in stock a million and a-half barrels of oil, all in steel tanks. It is intended to erect six 55,000-barrel steel tanks upon land recently acquired at Los Angeles harbour.

**San Francisco Exports.**—The exports of various crude and refined oils from San Francisco is increasing in a remarkable degree. So far this year 76,000,000 gallons of crude have been exported, as compared with 22,600,000 gallons for the corresponding period a year ago, while 33,000,000 gallons of kerosene have been sent abroad, as compared with under 26,000,000 gallons a year ago. The fuel oil exports, however, are small, for since the commencement of the year to the middle of April only 3,000,000 gallons were exported, as against over 28,000,000 gallons for the three and a-half months of 1913.

## ROUMANIAN.

**Production.**—The production has decreased owing to the eruptive wells of Moreni having slightly slackened their activity.

**Astra-Romana.**—The production of this company now averages 1,750 tons a day, of which 1,338 tons are obtained at Stavropoleos.

**Transport Tariffs on the Roumanian Railways.**—The Administration of the Roumanian Railways intends to increase the transport tariffs by 10 per cent.

**Well No. 8P Romana-Americana.**—Well No. 8P of the Romana-Americana, which caught fire on April 15th, has nevertheless continued its yield and gives by eruptions over 300 tons a day.

**Production during March.**—The production of crude oil during March amounted to 160,000 tons, as against 132,000 tons produced in February, thus showing an increase of 28,000 tons.

**Prices.**—Prices of crude oil remain firm and the offers of oil are rare. Bustenari crude oil is quoted at francs 8·50 per 100 kilos. for prompt delivery and francs 8·30 for delivery in a few months' time. The prices of products on the interior market remain unchanged. There is a great demand on the interior market for residuals.

**The Steaua-Romana.**—The production of this company has during the past week varied between 964 tons and 1,046 tons. There are in eruption wells No. 160 at Gahitza, Nos. 116 and 250 at Bucea, No. 233 at Chiciura, No. 235 at Tzonteshti and No. 16 at Moineshti.

**Romana-Americana.**—The production of this company at present amounts to 1,010 tons a day, of which 970 tons are produced at Moreni, 15 tons at Bustenari, 20 tons at Baicoi and 5 tons at Tetzcani.

**Fire at Moreni.**—On April 23rd a fire broke out at Moreni and destroyed a productive well of the Romana-Americana and wells Nos. 1 and 3 Colombia. The fire was caused by the friction of stones against metal materials by a spark. All the neighbouring wells were in great danger of catching fire, but owing to energetic measures taken, the fire was limited.

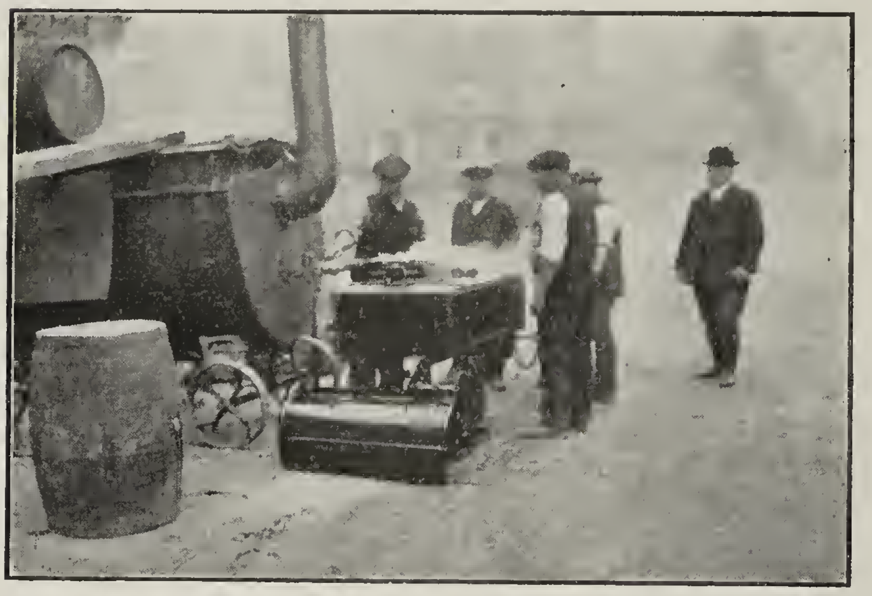
**Eruptive Wells of the Astra-Romana.**—Wells Nos. 16 S and 37 at Moreni are still continuing their eruptions. The former well has been cleaned from sand. At Bana there are three wells in eruption, yielding 300 tons a day. The Astra-Romana is now considering boring two wells by the rotary system in the immediate neighbourhood of well No. 30 of the Roumanian Consolidated Oilfields, Ltd.

**New Borings.**—The success of the No. 30 well of the Roumanian Consolidated Oilfields, Ltd., is inducing local producers to drill a large number of new wells in the district near this well. Most of the new wells will be bored by the rotary system in order to reach the stratum which has been proved by the well of the Roumanian Consolidated Oilfields at a depth of 765 metres in the shortest possible time.

# Spraying Fluxphalte at Putney with the "Flapper" Machine.

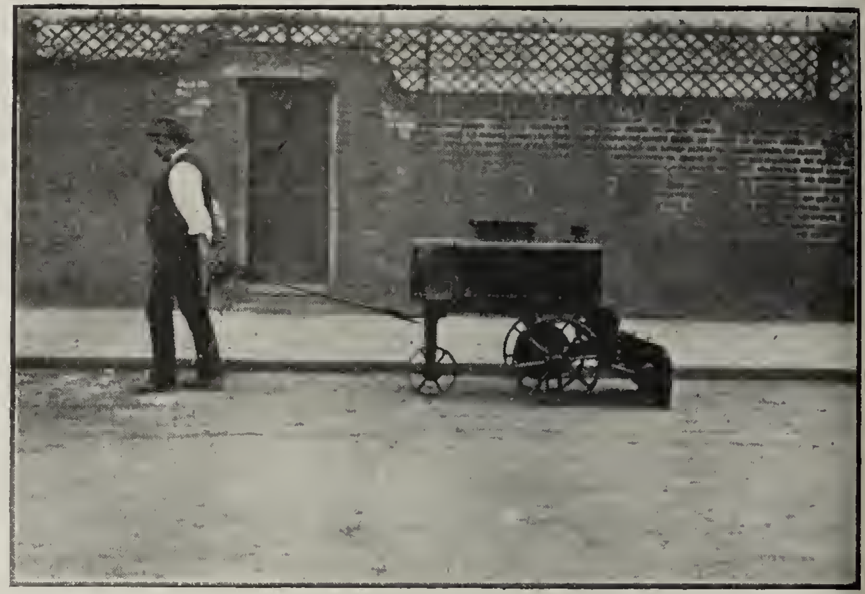
Since the introduction of Fluxphalte (the liquid Mexican bitumen for road spraying) about two years ago, considerable progress has been made in its use on the roads of this country. This progress is likely to be distinctly accelerated by the introduction of the new spraying machine, for which the Anglo-Mexican Petroleum Products Company, Ltd., have registered the word "Flapper," which describes the principle of its action.

The new machine was used last week for the first time at Putney Hill, where the Wandsworth Borough Council sprayed about 4,000 yards super.



Filling the Sprayer from the Boiler.

In connection with the "Flapper" machine, boilers fitted with the same company's anti-frothing tray were used for heating the material, and a temperature of over 400° Fahr. was readily attained. The "Flapper" machine, which is filled from these roadside boilers, contains 50 gallons of the liquid bitumen, and, as will be seen by the photographs, is drawn by hand. Immediately the valve was released the Fluxphalte was sprayed on the road by means of the blades of a rapidly rotating "Flapper," and a very fine, even film was laid on the road. This was followed by an application of ¼-in. granite chippings, and it says much for the process that, after this top dressing, the portion of the road treated was at once thrown open to the traffic, including a frequent service of motor 'buses. The improvement this machine effects over the ordinary spraying machines is seen in the fact that the bitumen appeared to set hard within an hour or so of its application. A number of surveyors and Press representatives inspected the work on Wednesday and Thursday, and were favourably impressed by the simplicity of the operations and the rapidity with which the work was carried out.



The "Flapper" Sprayer.

The Completed Road—a Dustless Thoroughfare.

The Anglo-Mexican Petroleum Products Company, Ltd, the proprietors of Fluxphalte, have arranged to loan these "Flapper" machines to all municipal engineers spraying Fluxphalte during the ensuing season.

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# New Oil Reference Books.

## Mr. W. R. Skinner's New Manual.

During the present week the 1914 edition of Mr. W. R. Skinner's "Oil and Petroleum Manual" has made its welcome appearance, and is more bulky than ever—another sign of the increasing importance of the petroleum industry. The book—an indispensable work of reference for all associated with the industry—is most comprehensive, the various details of the oil companies in which British capital is interested being set out in that clear manner which has been so much appreciated in the former editions. The present volume, which contains reference to nearly 800 companies, whose combined capitals represent over £195,000,000, should be in every oil office in the world.

## The "Financial Times" Oil Handbook.

Published at 2s., the fifth edition of the *Financial Times* oil handbook is now obtainable through the usual channels. This handbook, which has attained considerable popularity, contains particulars of approximately five hundred oil companies, while in an interesting preface the crude oil output of the world for the past two years is given. We are sorry, however, to see some strangely expressed opinions attached to many of the oil companies quoted. One of these is particularly rich, for it tells us that the shares of a certain company are "a fair speculative investment," and yet this company has been established for sixteen years, has paid over 100 per cent. in dividends to its shareholders, and for the past eight years has regularly paid 8 per cent. besides placing large sums to reserve.

# THE GROSNY PETROLEUM INDUSTRY.

## A COMPREHENSIVE REVIEW FOR 1913.

*Specially translated from the "Neftannoie Dielo."*

Grosny, as a petroleum-producing centre, occupies a very important place among other Russian petroliferous fields, and its importance is considerably enhanced by the fact of the undoubted decline in the production during the last years on the four main Baku areas on one side, and on the other, by the continuous increase in the production of the newer areas and districts. Among the latter, the first place is entirely occupied by Grosny. The record year of the Grosny petroleum industry was 1911, when its production increased to 75,200,000 poods, and when it was able to put on the interior markets 15,000,000 poods in addition to 18,000,000 poods to cover the needs of the Vladikavkas Railway. This record year gave the Grosny petroleum producers great hopes, and they expected to obtain 90,000,000 poods during the next year, so that Grosny began to be looked upon as a small Baku. The success of Grosny has also attracted the attention of the Baku petroleum producers, who went there with their capital. Unfortunately the next year, 1912, did not justify the high hopes, for the production on the Grosny oilfields decreased by 10,000,000 poods. Spoiled by the rich results in the western area and the tremendous spouters acting there in 1910, the Grosny petroleum producers neglected to elaborate a scientific scheme for the development of their industry, did not pay due attention to the appearance of water in the wells of the western district in 1911, and did not undertake proper measures in time, with the result that the wells in this district became inundated with water and consequently a great decrease in the production took place.

Investigations were then made on the southern slopes of the anticlinal on the western as well as on the eastern areas. A new area was discovered at a distance of 3 or 4 versts from Grosny on the Bellik, Tchermoeff, Kurumoff, and adjoining lands, where two years of increased boring activity have already shown good results.

The total production on the Grosny oilfields on the old, as well as on the new area during 1913 amounted to 73,659,265 poods, of which 72,692,969 poods were obtained on the old area, showing an increase of 7,263,362 poods or 11.1 per cent., as against the output for the preceding year. The production on the new area during the year amounted to 966,296 poods. A comparison in the figures of production during the last five years shows the yield of 1913 to be near to the production of 1910, that is to say the year preceding the record year.

The above production includes 4,049,464 poods of spouted oil obtained on the old area and 966,296 poods or the whole of the production obtained on the new area, making a total of spouted oil of 5,015,760 poods, which in comparison with the small figure of spouted oil during the preceding year, viz., 109,920 poods, is a very great increase. While the spouted oil in 1912 amounted to but 0.1 per cent. of the total production, that in 1913 amounted to 6.9 per cent., but of course, this large increase in the spouting production is but a casual occurrence and cannot be considered as a basis for the future development. In 1912, the production by baling amounted to 65,319,687 poods, while in 1913 it reached 68,643,505 poods, showing an increase of 5.1 per cent., which is very considerable.

The total number of producing firms in 1913 was 15, as against 12 in 1912. For the first time a production was obtained by the firm Skhirtladze, which during the year carried on operations on nine new plots in the eastern area with a production of 1,068,700 poods. Tikhomiroff, on plot 48, leased from the Vladikavkas Railway, obtained 416,180 poods, and Belozerski, on plot 61, leased from the Russian Nafta Society, obtained 3,320 poods. A new production was also obtained by Krizevich on Bellik plot, No. 1, viz., 603,693 poods, and by Grube on Bellik plot B, 362,603 poods. The following table shows the production of the firms during 1913 in comparison with that for 1912 :—

| | 1913. (poods). | 1912. (poods). |
|---|---|---|
| Akhverdoff & Co. .. .. | 29,945,600 | 23,906,700 |
| Spics Petroleum Company .. | 13,867,905 | 16,481,343 |
| Northern Caucasian Company | 8,833,596 | 2,597,615 |
| Wishaw & Co. .. .. .. | 5,804,140 | 6,892,515 |
| Russian Standard Petroleum Company .. .. .. | 4,269,770 | 7,408,392 |
| Putiloff .. .. .. .. | 2,610,100 | 3,151,901 |
| Anglo-Russian Maximoff .. | 2,337,487 | 1,686,041 |
| Tchelekan-Dagestan .. .. | 2,324,609 | 2,196,715 |
| Skhirtladze .. .. .. | 1,068,700 | — |
| Moscow Petroleum Company | 739,375 | 478,652 |
| Tikhomiroff .. .. | 416,180 | — |
| Caspian & Black Sea Company | 259,540 | 301,300 |
| St. Petersburg Petroleum Company .. .. .. .. | 182,024 | 256,606 |
| Anglo-Terski Petroleum Company .. .. .. .. | 30,628 | 71,827 |
| Belozerski .. .. .. | 3,320 | — |

The number of firms with an increased production was eight, and the increase in their production is shown in the following table :—

| | Increase. (poods). |
|---|---|
| North Caucasian Company .. .. .. | 6,235,981 |
| Akhverdoff .. .. .. .. .. | 6,038,900 |
| Skhirtladze .. .. .. .. .. | 1,068,700 |
| Anglo-Russian Maximoff .. .. .. | 651,446 |
| Tikhomiroff .. .. .. .. .. | 416,180 |
| Moscow Petroleum Company .. .. | 260,723 |
| Tchelekan-Dagestan .. .. .. .. | 127,894 |
| Belozerski .. .. .. .. .. | 3,320 |
| Total .. .. .. .. .. | 14,803,144 |

Almost all the firms with an increased production have their properties in the eastern area, which has a promising future, as it is considerably richer in petroleum than the western area, and also owing to new areas situated to the north and to the south from the old plots. The firm Akhverdoff, out of its nine producing plots, has but two in the western area and the whole increase in the production is due to plot 23 in the eastern area, on which the production increased by 6,000,000 poods as against the preceding year. The firms Skhirtladze, Anglo-Russian Maximoff, Tikhomiroff and Moscow Petroleum Company all have their plots exclusively in the eastern area, and Skhirtladze and Tikhomiroff have obtained their production on the new northern plots. The great increase in the production of the North Caucasian Company, which has plots exclusively in the western area, is due to the strike of rich oil on plots Nos. 60, 78, and 71, situated to the south of the axis of the anticlinal. These three plots have given 5,700,000 poods more than during the last year. As regards the other firms, their total production has decreased by 7,539,782 poods, viz., the Russian Standard, Spies Petroleum Company, Wishaw, Putiloff, St. Petersburg Petroleum Company, Caspian & Black Sea Company, and Anglo-Terski Company. All these firms are situated in the western area, with the exception of Spies and Wishaw, who also partly work in the eastern area. The decrease in the production of the Russian Standard Company is mainly due to the reduction in the yield on plot 87, which is a northern plot in the western area. The Spies Company had a considerably smaller production on plot No. 40, which is an old plot in the western area, and which is to all appearances exhausted, and also on the extreme western plot, No. 92. The decrease in the production of the firm Wishaw is due to the reduction in the production on the northern plot of the western area, No. 93, and also on the old plot, No. 39, of the eastern area. The four plots of Putiloff showing a decrease are all situated in the eastern area, and the reduction here is due probably to the exhaustion of the old wells.

Thus in the western area the best-producing plots are those which are situated to the south of the axis of the anticlinal, while in the eastern area the best plots are those situated in the centre of the district. Taking the production of the two districts separately, that of the eastern area has increased by 6,979,000 poods, or by 16.3 per cent., while that of the western district by 1,065,600 poods, or by 4.7 per cent. The following table shows the number of wells on both areas on the 1st of January, 1914 and 1913 :—

| | 1914. | | | 1913 |
|---|---|---|---|---|
| | Old area. | New area. | Total. | |
| In exploitation .. | 278 | 2 | 280 | 223 |
| In trial baling .. .. | 6 | — | 6 | 6 |
| Boring and deepening .. | 95 | 21 | 116 | 71 |
| Preparing for boring .. | 41 | 9 | 50 | 18 |
| Repair .. .. .. | 7 | 2 | 9 | 22 |
| Inactive .. .. | 93 | — | 93 | 62 |
| Total .. .. | 520 | 34 | 554 | 402 |

The total number of wells has increased by 152 or by 38 per cent., but by deducting the number of inactive wells the number has increased by 121 wells, or 35.6 per cent. The number of wells in erection has nearly trebled. Generally speaking, the considerable increase in the number of all classes of wells shows how extensive has been the activity of the Grosny petroleum producers.

The number of producing wells in 1913 was 348, or 74 or 27 per cent. more than in the preceding year, of which the increase in the eastern area amounts to 56 wells, or 42.4 per cent., and the western area to 18 wells, or 12.4 per cent. The average daily production per well in the Grosny oilfields has slightly increased, viz., from 894 poods to 906 poods. The average depth of the producing wells, owing to a large number of wells of small depths in the eastern area having entered into exploitation, has slightly decreased, viz., from 1,810 ft. to 1,758 ft. The extensive boring activity on the Grosny oilfields during the recorded year can be clearly seen from the following table, showing the number of new wells and feet bored :—

| | No. of wells. | Feet bored. |
|---|---|---|
| 1909 .. .. | 125 .. | 83,467 |
| 1910 .. .. | 118 .. | 87,838 |
| 1911 .. .. | 118 .. | 72,743 |
| 1912 .. .. | 140 .. | 119,165 |
| 1913 .. .. | 219 .. | 201,867 |

Thus, boring during the last five years has increased almost 2½ times, and the number of new wells and wells in boring and deepening 1¾ times. Boring activity during the year was very general. On the old area there were bored 178,942 ft. and on the new area 22,926 ft., or a total of 201,868 ft., while in 1912 the respective numbers were 118,988 ft. on the old area, 2,682 ft. on the new area, or a total of 121,670 ft.; that is to say, boring during the year has been 80,198 ft. or 65.8 per cent. more than during the preceding year. The number of wells in boring and deepening at the same time amounted to 219, or 79 more than during the last year.

Judging from the above figures, boring activity has developed more extensively in the western area, viz., to the south of the axis of the anticlinal. During the year there were bored 104,414 ft., as against 63,749 ft. during the preceding year, or 40,665 ft. or 63.8 per cent. more than in 1912. In the eastern area there were bored 74,528 ft., or 19,146 ft. or 34.6 per cent. more than during the preceding year. The number of wells in boring and deepening has increased more in the eastern than in the western area, viz., in the former by 58 wells and the latter by 21 wells. During the last five years boring work in both areas was as follows :—

| | Eastern area. | | Western area. | |
|---|---|---|---|---|
| | No. of wells. | Ft. bored. | No. of wells. | Ft. bored. |
| 1909 .. | 63 .. | 40,543 | 62 .. | 42,925 |
| 1910 .. | 62 .. | 38,409 | 56 .. | 49,429 |
| 1911 .. | 65 .. | 30,740 | 53 .. | 42,004 |
| 1912 .. | 70 .. | 55,381 | 70 .. | 63,749 |
| 1913 .. | 128 .. | 74,528 | 91 .. | 104,414 |

During the preceding year the total area in exploitation amounted to about 1,054 desiatines, showing an increase of 126½ desiatines as against the preceding year. The area in exploitation in Grosny grows very rapidly, and during the last five years it has increased more than 1½ times. The area of the new district is estimated at 1,308 desiatines.

The quantity of petroleum consumed as fuel on the fields amounted during the twelve months to 5,697,715 poods, as against 6,474,650 poods during 1912, showing a decrease of 776,935 poods, which points to the fact that there is an increase in the use of natural gas for exploitation purposes.

The results of the extensive operations carried out on the southern plots of the old area, especially in the western district, as well as the situation on the new area, are not yet defined, and it is not possible to give an accurate estimate of the probable figures which the production will reach at the end of this year. However, judging from the figures already obtained, the production for 1914 will under favourable conditions reach a figure of 80,000,000–90,000,000 poods, and probably exceed this.

# California Public Oil Land Protection Bill.

## IMPORTANT SUGGESTED AMENDMENTS.

*Reprinted from the "Oil Paint and Drug Reporter."*

In a Bill (H. R. 15469) which has been introduced in the House of Representatives by Representative Church, of California, to amend an existing law relating to the protection of locators in good faith on oil and gas lands, who shall have effected an actual discovery of oil or gas on the public lands of the United States, it is proposed to add to the existing law a new section, as follows :—

"That where applications for patents have been or may hereafter be offered for any oil or gas land included in an order of withdrawal upon which oil or gas has heretofore been discovered, or is being produced, or upon which drilling operations are in actual progress at the date of the passage of this Act, and oil or gas is thereafter discovered thereon, and where there has been no final determination by the Secretary of the Interior upon such applications for patent, said Secretary, in his discretion, may enter into agreements, under such conditions as he may prescribe with such applicants for patents in possession of such land or any portions thereof, relative to the disposition of the oil or gas produced therefrom or the proceeds thereof, pending final determination of the title thereto by the Secretary of the Interior, or such other disposition of the same as may be authorised by law."

Representative Church's Bill has been referred to the Committee on Public Lands of the House.

A prompt report is made from the Committee on Public Lands of the House on the Bill (H. R. 15469) introduced by Mr. Church of Colorado, and accompanying the measure is an important statement made to the chairman of the Public Lands Committee by Secretary Lane of the Interior Department, in which the Secretary calls attention to the desirability of furnishing effective relief to the oil operators on lands in California.

About the time of his preparing the letter addressed to Chairman Ferris of the House Committee on Public Lands, Secretary Lane made public from the Interior Department a general statement in regard to the need for legislation on behalf of the independent oil operators, and in commenting upon the recommendations which he made to the Public Lands Committee, Secretary Lane said :—

"The Bill is particularly interesting to operators in California because of the situation now existent in that State. A very large number of oil claims have been located under the general mining laws which are not well adapted to the development of this kind of mineral, with the result that most of the claims are under investigation by the Land Department or have been made the subject of proceedings in the land offices or in the courts.

"The uncertainties of titles to these lands has resulted in the refusal of pipeline owners and oil purchasers to transport and buy the oil produced from the lands involved. This is disadvantageous not only to the claimants and operators, but to the United States, because of the failure to continuously operate the wells may result in the diminution or destruction of the oil values through the intrusion of water in the wells, or through the draining of the oil and gas deposits from under the Government lands through oil wells sunk and in operation upon the adjacent patented lands.

"The Bill is designed to temporarily relieve the existing situation by permitting the Secretary of the Interior, in his discretion, to enter into agreements with applicants for patents in possession of these lands relative to the disposition of oil or gas produced therefrom, or the proceeds thereof, pending final determination of the title to the lands by the Secretary, or such other dispositions as may be authorised by law.

"In his report the Secretary expresses the opinion that the situation demands immediate attention, but also points out that further legislation in the form of a general Bill providing for the disposition of such deposits through leases will be necessary. The representatives of the independent oil operators in California, now in the city, are also urging the enactment of the legislation."

The formal communication which the Secretary sent to the Public Lands Committee, following on the idea expressed in the foregoing general statement on the subject, is as follows :—

"Washington, April 10th, 1914.

"Department of the Interior.

"Hon. Scott Ferris, Chairman Committee on
Public Lands, House of Representatives.

"My dear Mr. Ferris,—I am in receipt of your request for report and recommendation upon H. R. 15469, a Bill to amend the Act of Congress approved March 2nd, 1911 (36 Stat., 1015). The amendment proposed is the addition of a section which will authorise the Secretary of the Interior to enter into agreements, under such conditions as he may prescribe, with parties who have presented or may present applications for patent for oil or gas land included in an order of withdrawal, and upon which oil or gas has been discovered, is being produced, or upon which drilling operations shall be in actual progress at the date of the passage of the Act, said agreements to relate to the disposition of the oil or gas produced from the lands, or the proceeds thereof, pending the final determination by the Secretary of the Interior of the validity of the offered applications for patents.

"The proposed legislation is peculiarly applicable to the California oilfields, where a large number of locations and applications are under investigation or involved in proceedings which challenge the validity of the locations or the regularity of the applications presented. Many oil and gas wells are in actual operation upon these and adjacent lands, and by reason of the investigations of the Department and certain suits instituted by the United States to enjoin parties from removing oil from the lands, the operators are unable to dispose of the oil or gas under existing laws pending adjudication of their claims. This is disadvantageous, not only to the operators, but to the United States, because the failure to continuously operate the wells may result in the diminution or destruction of the oil or gas values through introduction of water into the wells or by reason of the draining of the oil and gas deposits from under the lands involved through wells sunk and in operation upon adjacent patented lands. The situation is one which demands immediate attention if the operators and the United States are to be saved from large and irreparable loss, and I earnestly recommend the enactment of the Bill. At the same time, I desire to point out that this Bill gives temporary relief only, in that it permits of adjustments which will permit of the operation of oil and gas wells and take care of the proceeds pending the final adjudication of the claims by the Department. It does not provide a method for disposing of the lands or the deposits after final adjudication of the cases if the claims of the applicants be finally denied. Relief for the latter situation may, however, be provided later.

"I understand the present Bill to authorise the Secretary of the Interior to enter into agreement with the record claimant to all or any part of a location, provided such record claimant has presented or shall present an application for patent for all or any portion of the location involved.

"I further direct attention to the general Bill providing for the leasing of lands containing deposits of oil, gas, and certain other minerals now pending before your Committee, and to the similar measure, S 4898, now pending before the United States Senate. The latter measures, if enacted, will prevent the future occurrence of such conditions as now confront us, and the necessity for the temporary remedial legislation now under consideration emphasises the importance of the early enactment of the general leasing measure.

"Very truly yours,

"Franklin K. Lane."

In following up the consideration of the general subject embraced in the Bill (H. R. 15469) and reporting favourably thereon, the Committee on Public Lands of the House make the following comments upon Secretary Lane's report on the Bill, and in submitting a favourable report on the Bill the Committee says :—

"A careful reading of Secretary Lane's report discloses that some temporary relief for these oilmen engaged in oil production on the public domain is an emergency. The legislation authorises the Secretary of the Interior to make working arrangements whereby the oil claimants may go on with the production of oil, and thereby preserve the rights of themselves and the United States until a suitable leasing law can be passed covering the case.

"Certain irregularities with reference to some of the oil operators have brought about a confusion of title. The institution of suits has caused the pipelines to refuse to accept the oil and buy the oil, there being no market for the oil other than the pipeline companies, and has brought stagnation in oil development.

'As will be observed by the Secretary's letter and from facts brought to the attention of the Committee in a printed hearing had, show that lands held in private ownership, most of which came from original land grants, of alternate sections make it possible for the lands held in private ownership to go on with the production, pumping and draining of the Government lands to an extent that is greatly to the disadvantage of the general government as well as to the oil prospectors themselves.

"Twenty-five or thirty independent oil producers of California appeared before the Committee and presented hardships, disaster and trouble which deserves the attention of Congress, and at the earliest possible moment.

"Your Committee was unanimously of the opinion that pending a time when these titles could be definitely settled and pending a time when those who deserve patent could get patents and those who should be denied patent could be formally denied patent, such temporary working arrangements as proposed in H. R. 15469 was about the only method of solving the problem.

"The Secretary of the Interior is a man of broad views, keen intellect, and with peculiar and actual knowledge of the actual conditions as they exist, and it is the thought of every member of the Committee, after prolonged hearings and painstaking attention that this Bill should be passed at once for the purpose of preserving what the Government has and what the developers of oil deserve, and to prevent damage and disaster from any source.

"The actual method of working is thought to be that the Secretary will retain a sufficient portion of the proceeds of the oil to indemnify the Government in the event the title will finally be held to be adverse to the claimants, so that untold hardships may not follow. Some of the men developing oil in the California region have almost been driven to bankruptcy. Telegraphic and personal appeals have come from California sources urging some action on the part of Congress.

"The Bill, as will be observed, does not part with a title to a foot of land or to any oil or gas of the United States, but merely authorises a continuation of operations to prevent waste, decay, destruction by water breaking in, and other disaster coming from the non-use of oil machinery and oil development. The Committee cannot urge too strongly the advisability of this temporary relief, and it at the earliest possible moment.

"The complaints have come chiefly from California and from a strip of country about 125 miles long and from two to five miles wide on the west side of the San Joaquin Valley in California.

"As was suggested by Secretary Lane in his letter, there is pending in both branches of Congress, and in truth the Bill before the House Committee is well under way, legislation providing for a leasing system of the oil and gas lands of the United States, so that hereafter tangled titles relative to the procedure and acquirement may not be one of the troublesome tasks for the American Congress to deal with. The affording of this temporary relief by the passage of H. R. 15469 will in no manner interfere with the bread-gauged conservation policy outlined in the leasing law soon to be reported and now pending before the House and Senate Committees."

# NEW ENGLISH COMPANIES.

### THE BOHOMO OIL COMPANY, LTD.

Registered on April 22nd, by Bartlett & Gregory, 6, New Square, Lincoln's Inn, W.C. Capital, £3,000 in £1 shares. Objects: To acquire the business now carried on by H. D. Bowie, under the style of "The Bohomo Oil Company," at 49, Mason's Hill, Bromley, and to purchase, treat, refine and manufacture in accordance with secret processes or otherwise oil, grease and other products, and chemicals, etc.; also to enter into an agreement with H. D. Bowie. Signatories, F. J. Pignet, 6, New Square, Lincoln's Inn, W.C., and F. P. Lester, Melgund Road, Highbury, N. First directors, who are to number not less than two nor more than five, are not yet appointed. The chairman is to be appointed at each meeting of the members. Qualification, £100. Remuneration, £15. 15s. each per annum. Registered office, 49, Mason's Hill, Bromley, Kent. Private company.

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### BELLIK (CAUCASIAN) OIL COMPANY, LTD.

Registered on April 23rd, by Mayo, Elder & Co., 10, Drapers' Gardens, E.C. Capital, £100 in 10s. shares. Objects: To acquire oil-bearing lands and mines, etc., in Russia or elsewhere; to prospect for work, and develop petroleum and oil-bearing lands; and to carry on the business of oil, naphtha, and petroleum refiners, etc. Minimum cash subscription, seven shares. Signatories, W. Faur, 36, Queen's Road, Wimbledon, S.W.; F. Robinson, 66, Compton Road, Winchmore Hill, N.; C. T. Browning, 87, Riversdale Road, Highbury Park, N.; J. R. Beckensall, 66, Myddelton Square, E.C.; C. T. Twort, 87, Holmdene Avenue, Herne Hill, S.E.; W. B. Clarke, 13, Dashwood Road, Gravesend, Kent; and P. Kenny, 133, Rusthall Avenue, Bedford Park, W. First dirictors to be appointed by the signatories. Qualification, £250. Remuneration (other than managing director), £150 each per annum, and in addition 5 per cent. of the net profits remaining after a dividend of at least 10 per cent. has been declared upon the ordinary shares of the company (divisible).

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### BRUNEI PETROLEUM COMPANY, LTD.

Registered on April 16th, by Waterhouse & Co., 10 and 12, Bishopsgate, E.C. Capital £850,000, in £1 shares (150,000 preferred). Objects: To carry on the business of producers, refiners, storers, transporters, suppliers, sellers, and distributers of petroleum and other oils and the products thereof. Signatories, J. C. Inglis and C. S. Harper, both of 10 and 12, Bishopsgate, E.C., and F. G. Kerby, 10 and 11, Austin Friars, E.C. First directors (who are to number not less than five nor more than eleven) are to be appointed by the signatories Qualification, seven shares. Remuneration, £100 each per annum for the first three years, and afterwards £200 (chairman, £100 extra). Private company.

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### BRITISH ISLES' OIL PRODUCERS, LTD.

Registered on April 14th, by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital, £5,000 in 500 shares of £5 each, and 2,500 shares of £1 each. Objects: To acquire and turn to account oil shale and oilfields, etc. Minimum cash subscription, seven shares. Signatories, P. Pillion, 1, Wellesley Court Road, Croydon; W. M. Ellis, 40, Semley Road, Norbury, S.W.; M. A. Highland, 12, Park Avenue, Tottenham, N.; G. Kirkdale, 84, Rochester Row, S.W.; V. G. Birrell, 43, Mount Ephraim Road, Streatham, S.W.; G. Hibbert 12, Trinity Square, Southwark, S.E.; and E. H. Dutton, 9, Rosslyn Crescent, Wealdstone, Middlesex. First director, C. E. Allen, Stormont Castle, Strandtown. Belfast. Qualification, £1,000. Remuneration, £375 per annum, and 5 per cent. of the surplus profits in each year. Secretary, P. Pillion.

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# The American Oil Market.

### Saturday, April 18th, 1914.

The crude market has been subjected, says the *Oil Paint and Drug Reporter*, to more general and significant declines during the week, the featuring development being the reaction in the high-grade Pennsylvania oils by 10c. on Friday. A summary of the week's changes follows:—

| | Last week. | Current week. | Date of change. April |
|---|---|---|---|
| Pennsylvania .. .. | $2.50 | $2.40 | 17 |
| Cabell .. .. .. | 2.07 | 1.97 | 17 |
| Mercer black .. .. | 2.00 | 1.90 | 17 |
| New Castle .. .. .. | 2.00 | 1.90 | 17 |
| Corning, Ohio .. .. | 2.00 | 1.75 | 17 |
| Kansas and Oklahoma .. | .95 | .85 | 13 & 15 |
| Healdton, Okla. .. .. | .70 | .60 | 13 |
| Electra, Tex. .. .. | 1.05 | .95 | 13 |
| Corsicana, Tex., light .. | 1.05 | .95 | 13 |
| Henrietta, Tex. .. .. | 1.05 | .95 | 13 |

Of first interest is the setback in the Pennsylvania oils. Producers in the high-grade fields had been encouraged that the market for these varieties would be sustained in the face of declines in the mid-continent and Texas oils being on a distinct basis as to their character as well as to the conditions governing their production. The Pennsylvania fields have been yielding relatively light wells of late in the established sections and repeated efforts to develop new pools of consequence, similar to the Blue Creek pool of Kanawha County, West Virginia, have met with continued disappointment. There has been no marked abatement of wildcat drilling, in consequence, the premium on crude prices acting as a spur to development work, and under the more favourable weather conditions the season's operations were expected to be prosecuted with keenest energy. It is, however, reasonable to associate the decline in the high-grade oils with the sharp break in the mid-continent product during the last two weeks, as some grades of the latter are especially suitable for refining purposes and are being handled to a large extent by the Eastern pipeline companies. The late change in the first Pennsylvania oils is the first since February 5th, 1913, when the series of sharp advances ended in a $2.50 basis. No decline has been noted since June 11th, 1910, when the market went from $1.35 to $1.30. The further setback to the regular mid-continent oil, marked by two declines of 5c. each, establishes a low level since 1912. The weakening of this grade is justified on the continued heavy production, the Cushing field contributing largely to the excess of stocks. Operators are prepared for a further revision downward until more adequate storage and transportation facilities can be provided. The reduction in Healdton and Texas oils may be accounted for by sympathetic conditions.

The week's review of operations in the Eastern fields shows a slight decline in completions, as rains have impeded the transportation of machinery and supplies, but in the face of this loss the new production for the week scored a substantial increase. The current summary notes 163 completions, 5,535 barrels of new daily production and 56 dry holes, comparing with 168 completions, 3,330 barrels of new daily production and 63 dry holes previously. The only fields to register gains in completion were Kentucky, Indiana, and Illinois. The heavy increase in new production came from Illinois and Indiana. Harrison County, West Virginia, which has been the most promising source of new production in the high-grade fields, has contributed no noteworthy wells during the week.

In the Texas, Louisiana, fields during the week there was a sharp decline in new production, although completions were slightly in excess of those of the former week. The Louisiana fields were chiefly accountable for the loss, followed by the Gulf Coast districts. The best strike was a well starting at 2,200 barrels in the Sour Lake district. There have been no indications of any abatement in drilling interest as a result of the declining course of crude values and considerable wildcat drilling is in progress in many sections in Texas.

The further decline in crude values has been the overshadowing development of the mid-continent field. Operators, as a rule, seem to realise the reasonableness of the downward tendency of the market and many of them are prepared for further declines before conditions are established on a sounder basis. Plans are in progress for increasing materially the storage facilities at Cushing, and an additional refining plant will be installed.

### CLOSING QUOTATIONS.

#### Crude at the Wells.

The quotations for oil represented by credit balances were:—

| | 1913. April 18. | 1914. April 18. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.50 | $2.40 |
| North Lima ... ... ... ... | 1.37 | 1.49 |
| South Lima ... ... ... ... | 1.32 | 1.44 |
| Indiana ... ... ... ... ... | 1.32 | 1.44 |
| Illinois, above 30 degrees ... ... | 1.25 | 1.45 |
| Kansas and Oklahoma ... ... ... | 0.88 | 0.85 |
| Humble, Tex. ... ... ... ... | 0.85 | 0.75 |
| Saratoga ... ... ... ... ... | 0.85 | 0.80 |
| Sour Lake, Tex. ... .. ... | 0.85 | 0.75 |
| Californian, Coalinga light ... ... | — | 0.85 |
| ,, Kern River heavy ... | — | 0.40 |
| Canadian Oil .. ... ... ... | 1.77 | 1.89 |

#### Refined—For Export.

| In cents. | | Week ended April 18. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... | ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... | ... | 8·75 | 9·75 |
| Cases, New York ... ... | ... | 11·25 | 12·25 |
| Cases, Philadelphia ... ... | ... | 11·25 | 12·25 |

#### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 20 |
| Gasoline, 86 deg. ... ... ... ... ... | 28 |

#### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.40 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.50 |

#### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 8½–9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 2,470,730 | 99,881,670 | 36,150,279 |
| Refined ... ... | 32,220,660 | 245,317,045 | 257,801.342 |
| Naphtha ... | 8,246,870 | 10,865,595 | 30,288,945 |
| Gas oil ... ... | 126,980 | 14,789,335 | 13,501,945 |
| Fuel oil... ... | 1,317,665 | 18,623,345 | 36,537,690 |

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

May 1st, 1914.

There are no further alterations in the prices of Refined Petroleum, which are as follows:—Russian, 7½d.; American, 7¾d.; American Water White, 8¾d.; Roumanian, 7¼d.; Galician, 7¼d.

### LUBRICATING OILS.

The Russian qualites have been reduced 7s. 6d. per ton, the current prices are as follows:—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The market price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted at 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT

is unchanged, at 1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality retail in London.

### TURPENTINE.

The American Turpentine market has been considerably easier, quotations are now as follows:—Spot, 31s. 4½d.; May/August, 31s. 7½d.; September/December, 32s. 7½d.

## LIVERPOOL.

April 30th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## AMERICA.

New York, April 30th.

Following another 10c. cut in Crude prices, the market is lower. Refined, in cases, is quoted at 11·10; Standard White, 8·60; Credit balances, 2·40.

Philadelphia, April 30th.

Standard White is quoted at 8·60.

## GERMANY.

Hamburg, April 29th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730: second quality (0·750–0·770 gravity), 32·00–33·00.

## RUSSIA.

Baku, April 28th.

The tendency of benzine is lower, that of gas oil and lubricating oils steady. Crude oil is quoted at 38¼–39 copecs per pood spot. Kerosene, 47½ copecs. Residuals, 37–37½ copecs.

## AUSTRIA.

April 28th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 29 kronen at Oderberg. Benzine, 700/710, 34 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 6·80 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

## ROUMANIA.

April 28th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·40–8·50 |
| ,, ,, ,, | Moreni ... | 7·50–8·00 |
| ,, ,, ,, | Tzintea ... | 6·00–7·00 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bordeni ... | 9·25–9·50 |
| ,, ,, ,, | Bana ... | 10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 18·00–19·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 7·50 |

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date April 30th, as follows:—

Owing to the fall in price of tin and to slackness of demand prices are easier, and we quote oil sizes today as under:—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 13/1½ to 13/3 per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... | 18/3 ,, 18/6 ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

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# Imports of Petroleum Products into the United Kingdom.

**Specially prepared for this Journal by the Customs House.** **All Rights Reserved.**

FOR THE WEEK ENDED APRIL 27TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| April. | LONDON— | | | |
| 27/3 | Price's Patent Candle Co. | Lamp | 3,320 | Kustendje |
| 28/3 | British Petroleum Co. | ,, | 3,770 | Westwego |
| 28/3 | ,, ,, | Gas | 1,460 | ,, |
| 30/3 | Price's Patent Candle Co. | Lamp | 800 | Kustendje |
| 21 | Anglo-American Oil Co. | Lub. | 67.800 | New York |
| 21 | Union Lighterage Co. | ,, | 3,000 | N. Orleans |
| 21 | Schliemann's Oil, etc., Co. | ,, | 3,000 | ,, |
| 21 | J. Thompson | ,, | 240 | Riga |
| 21 | Port Authority | ,, | 3,400 | Hamburg |
| 21 | ,, | ,, | 40 | Antwerp |
| 21 | L. Freeland | Lub. Gr. | 1,040 | ,, |
| 21 | J. Harrison | Lub. | 130 | ,, |
| 21 | Asiatic Petroleum Co. | Benzine | 525,680 | Pladjoe |
| 21 | ,, ,, | ,, | 267,450 | P. Samboe |
| 21 | H. P. Wheatley & Co. | Spirit | 522,000 | Novorossisk |
| 21 | Petrol Users' and Traders' Supply Society | ,, | 225,370 | Kustendje |
| 21 | H. P. Wheatley & Co. | Crude | 630 | Novorossisk |
| 22 | Anglo-American Oil Co. | Gas | 2,183,880 | New York |
| 22 | ,, ,, | Lamp | 1,322,270 | ,, |
| 22 | Union Lighterage Co. | Lub. | 12,000 | ,, |
| 22 | Vacuum Oil Co. | ,, | 41,980 | ,, |
| 22 | Lubricating & Fuel Oils Co. | ,, | 3,080 | N. Orleans |
| 22 | Vacuum Oil Co. | ,, | 400 | Hamburg |
| 22 | Berlandina Bros. | Turps. Sub. | 2,720 | Philadel. |
| 22 | Anglo-American Oil Co. | Naphtha | 1,375,030 | New York |
| 22 | ,, ,, | ,, | 40 | ,, |
| 23 | W. Hodgson & Co. | Lub. | 290 | Riga |
| 23 | H. Vorley & Co. | ,, | 130 | Hamburg |
| 23 | Vacuum Oil Co. | ,, | 120 | Antwerp |
| 23 | J. Spurling | Lub. Gr. | 360 | New York |
| 24 | E. G. Boize | ,, | 450 | Hamburg |
| 24 | Lubricating & Fuel Oils Co. | Lub. | 2,670 | Baltimore |
| 24 | ,, ,, | ,, | 28,090 | Philadel. |
| 24 | S. Capon | ,, | 2,600 | ,, |
| 24 | Worthington & Boler | ,, | 7,700 | ,, |
| 24 | Produce Brokers Co. | ,, | 4,000 | ,, |
| 24 | ,, ,, | ,, | 2,600 | Baltimore |
| 24 | British Petroleum Co. | Gas | 506,800 | Port Arthur |
| 24 | ,, ,, | Fuel | 450,000 | ,, |
| 25 | Bowring Petroleum Co. | Lub. | 7,720 | Philadel. |
| 27 | Anglo-American Oil Co. | ,, | 57,080 | ,, |
| 27 | Mercantile Lighterage Co. | ,, | 7,600 | ,, |
| 27 | Langley, Smith & Co. | ,, | 9,420 | New York |
| 27 | Barrett, Tagant & Gotts | ,, | 5,200 | ,, |
| 27 | Port Authority | ,, | 9,200 | ,, |
| 27 | ,, | ,, | 2,650 | Hamburg |
| 27 | ,, | ,, | 280 | ,, |
| | LIVERPOOL— | | | |
| 21/3 | Anglo-American Oil Co. | Gas | 23,310 | New York |
| 21 | Burnaby & Chantrell | Lub. Gr. | 40 | Hamburg |
| 21 | ,, ,, | ,, | 1,160 | New York |
| 21 | J. T. Fletcher & Co. | Lub. | 440 | Antwerp |
| 21 | Anglo-American Oil Co. | ,, | 61,400 | New York |
| 21 | Vacuum Oil Co. | ,, | 940 | ,, |
| 21 | J. Light & Son | ,, | 4,000 | ,, |
| 21 | W. B. Dick & Co. | ,, | 5,800 | ,, |
| 21 | C. C. Wakefield & Co. | ,, | 50 | Hamburg |
| 22 | Vacuum Oil Co. | ,, | 8,250 | New York |
| 22 | W. H. Nott & Co. | Lub. Gr. | 50 | ,, |
| 22 | Huxley & Co. | Lub. | 1,030 | Stettin |
| 22 | White Star Line | ,, | 40 | New York |
| 23 | Pickford's | Lub. Oil and Paste | 1,060 | Hamburg |
| 24 | Crew, Levick & Co. | Lub. | 11,230 | N. News |
| 24 | Burnyeat & Dalzell | ,, | 160 | Bergen |
| 24 | Midland Railway | ,, | 410 | New York |
| 24 | Vacuum Oil Co. | Lub. Resid. | 13,280 | N. News |
| 25 | Huxley & Co. | Lub. | 1,080 | New York |
| 25 | Vacuum Oil Co. | ,, | 6,650 | ,, |
| 27 | ,, | Lub. Gr. | 20 | Antwerp |
| 27 | Worthington & Boler | Lub. | 800 | New York |
| 27 | A. Hopps & Sons | Lub. Resid | 2,600 | Halifax |
| 27 | ,, | Lub. | 2,920 | N. Orleans |
| | BARROW— | | | |
| 21 | Anglo-American Oil Co. | Benzine | 781,640 | Philadel. |
| 21 | ,, ,, | Naphtha | 732,060 | ,, |
| | BRISTOL— | | | |
| 21 | Anglo-American Oil Co. | Gas | 713,010 | Baton Rouge |
| 21 | ,, ,, | Fuel | 267,850 | ,, |
| 23 | Colthurst & Harding | Lub. | 240 | Hamburg |
| 24 | Heaton & Co. | Lub. Gr. | 520 | ,, |
| April. | BRISTOL— | | | |
| 24 | Pickford's | Lub. Oil and Gr. | 1,200 | Hamburg |
| 24 | O. Pragnell & Co. | Lub. Gr. | 210 | ,, |
| 24 | W. G. Clarke | ,, | 80 | Antwerp |
| 24 | Canadian Northern Steamships, Ltd. | Lub. Resid. | 2,750 | St. John's |
| 24 | First Anglo-Russian Oil Co. | Lub. | 2,260 | New York |
| 27 | Ford & Canning | ,, | 6,660 | ,, |
| 27 | C. Hill & Sons | ,, | 15,520 | ,, |
| | CARDIFF— | | | |
| 21 | Bristol Steam Navig. Co. | ,, | 2,400 | Antwerp |
| | GRIMSBY— | | | |
| 21 | J. Sutcliffe & Son | ,, | 550 | ,, |
| 21 | ,, | ,, | 50 | ,, |
| | HARWICH— | | | |
| 23 | Great Eastern Railway | ,, | 1,230 | ,, |
| 25 | ,, ,, | ,, | 290 | ,, |
| | HULL— | | | |
| 21 | T. M. Roberts & Co. | ,, | 550 | ,, |
| 23 | T. Wilson, Sons & Co. | ,, | 4,040 | Riga |
| 23 | Wilson's & N. E. Railway | ,, | 1,520 | Hamburg |
| 23 | ,, ,, | ,, | 480 | Antwerp |
| 24 | T. Wilson, Sons & Co. | ,, | 14,640 | New York |
| 27 | ,, ,, | ,, | 60 | Rotterdam |
| 27 | Wilson's & N. E. Railway | ,, | 1,960 | Hamburg |
| | MANCHESTER— | | | |
| 20/3 | British Petroleum Co. | Lamp | 3,020 | Sabine |
| 21 | Liverpool Storage Co. | Lub. | 7,720 | Philadel. |
| 21 | Anglo-American Oil Co. | ,, | 114,490 | New York |
| 21 | ,, ,, | Lub. Gr. | 1,950 | ,, |
| 21 | Liverpool Storage Co. | Lub. | 4,440 | ,, |
| 21 | F. Schofield & Co. | ,, | 5,030 | Philadel. |
| 21 | J. T. Fletcher & Co. | ,, | 400 | Antwerp |
| 21 | F. Leyland & Co. | ,, | 3,960 | New York |
| 22 | G. B. Taylor | ,, | 1,860 | Riga |
| 22 | Vacuum Oil Co. | ,, | 190 | Hamburg |
| 22 | G. B. Taylor | ,, | 5,550 | New York |
| 22 | Meade-King, Robinson & Co. | ,, | 6,000 | N. Orleans |
| 22 | ,, ,, | ,, | 4,400 | New York |
| 22 | T. Wilson, Sons & Co. | ,, | 1,000 | Riga |
| 23 | Meade-King, Robinson & Co. | ,, | 2,000 | Hamburg |
| 23 | Liverpool Storage Co. | ,, | 1,030 | New York |
| 27 | J. Bentley & Co. | ,, | 2,080 | Hamburg |
| | SUNDERLAND— | | | |
| 21 | British Petroleum Co. | Lamp | 1,254,500 | N. Orleans |
| | SWANSEA— | | | |
| 21 | Burgess & Co. | Lub. Gr. | 220 | Hamburg |
| | ABERDEEN— | | | |
| 24 | R. C. Reid & Co. | Lub. Oil and Gr. | 2,080 | ,, |
| | DUNDEE— | | | |
| 20 | A. B. Fleming & Co. | Lub. | 2,000 | Riga |
| 23 | D. Alexander & Sons | Lamp | 400 | Hamburg |
| | GLASGOW— | | | |
| 21 | Clyde Shipping Co. | Lub. | 900 | Antwerp |
| 23 | Allan Bros. & Co. | ,, | 2,200 | Philadel. |
| 23 | ,, | Lub. Gr. | 400 | ,, |
| 23 | ,, | Lub. | 51,040 | ,, |
| 25 | Anchor Line | Lub. Gr. | 1,000 | New York |
| 27 | ,, | Lub. | 14,280 | ,, |
| | GRANGEMOUTH— | | | |
| 20 | Jas. Currie & Co. | ,, | 360 | Hamburg |
| 21 | W. G. Yooll & Co. | Lamp | 240 | ,, |
| 22 | J. Rankine & Son | Lub. | 260 | Rotterdam |
| | LEITH— | | | |
| 21 | G. Gibson & Co. | ,, | 240 | Antwerp |
| 21 | ,, | ,, | 240 | Ghent |
| 21 | Jas. Currie & Co. | ,, | 360 | Hamburg |
| 21 | ,, | ,, | 360 | ,, |
| 21 | W. G. Yooll & Co. | Lamp | 3,560 | ,, |
| 23 | Jas. Currie & Co. | Lub. | 840 | ,, |
| 23 | G. Gibson & Co. | ,, | 40 | Antwerp |
| | BELFAST— | | | |
| 21 | G. Heyn & Sons | ,, | 450 | Riga |
| 25 | J. C. Pinkerton & Co. | ,, | 400 | Hamburg |
| | CORK— | | | |
| 23 | P. Murphy & Co. | Lub. Oil and Gr. | 330 | ,, |
| | | | 11,875,900 | |

From Lloyd's

April 30th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). Th· Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Antofagasta | San Francisco | L. April 13 |
| AMERICAN | Antwerp | New York | Arr. April 19 |
| APPALACHEE* | Kustendje | London | Pd. Gib. Apr. 28 |
| APSCHERON | Batoum | Genoa | Arr. April 27 |
| ARAL | Tyne | New Orleans | Arr. ab't Apr. 28 |
| ARAS | Rouen | Newport | Arr. Apr. 4. In port April 28 |
| ARCA | Singapore | Calcutta | Arr. ab't Apr. 29 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Off Niton Apr. 25 |
| ASHTABULA* | New York | London | L. April 19 |
| ASTRAKHAN | Sunderland | Tyne | Arr. April 27 |
| AUREOLE | Newport | Philadelphia. | Pd. Barry Island April 28 |
| AZOV | San Francisco | Payta | L. April 11 |
| BAKU STANDARD | Portland | Philadelphia. | Arr. Barry Apr. 11 In port Apr. 22 |
| BALAKANI □ | Port Arthur | Manchester | Arr. Apr. 12. In port Apr. 28 |
| BARNESON | San Francisco | Taltal | L. April 22 |
| BATOUM | Sheerness | Tyne | Arr. April 19 |
| BAYONNE | Genoa | Sabine | L. Havana Apr. 14 |
| BEACON LIGHT | Abadan | Invergordon. | Arr. April 29 |
| BEECHWOOD | Liverpool | Cienfuegos | Pd. South Stack April 17 |
| BLOOMFIELD | Tuxpan | Galveston | Arr. April 27 |
| BORJOM | Alexandria | Batoum | Cl. Constantinople Apr. 15 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Pd. St. Helena April 21 |
| BRILLIANT | Stettin | Philadelphia. | Arr. Shields April 29 |
| BRITISH SUN | ThamesHaven | Tyne | Arr. April 24 |
| BROADMAYNE | Kustendje | — | Pd. Dard. Apr. 27 |
| BUFFALO | San Francisco | Hangkow | L. April 21 |
| BULLMOUTH △ | Balek Pappan | Hangkow | Arr. Apr. 20 |
| BULYSSES △ | Tyne | Novorossisk | Arr. April 25 |
| BURGERMEISTER PETERSEN | Helsingborg | Sabine | Arr. Tyne Apr.26 |
| BUYO MARU | Calcutta | Rangoon | L. April 7 |
| C. A. CANFIELD* | New Orleans | Tampico | L. Port Eads April 19 |
| CALCUTTA (Br. Bq.) | San Francisco | Yokohama | L. April 11 |
| CAMILLO | Port Arthur. | Invergordon. | Pd. Dover Apr. 25 |
| CAPTAIN A.F. LUCAS | — | — | T. U.S., Pacific |
| CARDIUM △ | Balek Pappan | Europe | Pd. Perim April 25 |
| CARPATHIAN □ | London | Port Arthur. | Pd. Sand Key April 29 |
| CASSIS | Clyde | New York | Arr. April 24 |
| CASTOR | Colombo | Cochin | L. April 24 |
| CAUCASIAN □ | Port Arthur | Grangemouth | Arr. April 29 |
| CHARLES E. HARWOOD | Sabine | Tampico | L. April 8 |
| CHARLOIS. | Sabine | Rotterdam | L. April 18 |
| CHATHAM | Tuxpan | Galveston | Arr. April 18 |
| CHESTER | New York | Antwerp | Arr. Apr. 17. In port April 28 |
| CHEYENNE | Liverpool | Novorossisk | Pd. Dard. Apr. 23 |
| CIRCASSIAN PRINCE | — | — | T. W.C.S. America |
| CITY OF EVERETT | Sabine | Boston | Arr. April 11 |
| CLAM △ | Balek Pappan | Singapore | L. April 21 |
| CLEARFIELD | Taranto | Port Arthur. | L. Gib. April 27 |
| COMANCHEE | Liverpool | Sabine | Pd. Sand Key ab't April 23 |
| CONCH △ | Tyne | Gemsah | L. Suez Apr. 25 |
| CONRAD MOHR | New York | Bergen | Arr. April 24 |
| CORDELIA | Tocopilla | San Luis | Arr. ab't Apr. 25 |
| COWRIE △ | Saitozaki | Balek Pappan | L. April 23 |
| CURRIER | Guanica | Philadelphia | 106 miles S of Overfalls Apr. 20 |
| CYMBELINE | Tyne | Port Arthur | Pd. Cape Wrath April 24 |
| CYRENA | Singapore | Wellington | L. Napier Apr. 25 |
| CZAR NICOLAI II. | Batoum | Hamburg | Pd. Sagres Apr. 28 |
| DAGHESTAN | Philadelphia | Rouen | L. April 25 |
| DANUBIAN □ | Port Arthur. | Hamburg | Arr. April 25 |
| DAYLIGHT (Br. Bq.) | New York | Japan | Arr. Philadelphia Apr. 2. In port Apr. 10 |
| DELAWARE* | Sunderland | Tyne | Arr. April 20 |
| DELPHIN | Baton Rouge | Flushing | L. Norfolk, Va., April 19 |
| DERBENT | Batoum | Antwerp | P. Dard. Apr. 22 |
| DESABLA | San Pedro | Taltal | L. April 24 |
| DEUTSCHLAND | Philadelphia. | Hamburg | Arr. April 24 |
| DIAMANT | New York | Copenhagen | Arr. Apr. 26 and left same day |
| DONAX | Kustendje | Rotterdam | Pd. Gib. Apr. 26 |
| EBURNA △ | Singapore | Gibraltar | Pd. Perim Apr. 26 |
| EDWARD L. DOHENEY | Tampico | Galveston | Arr. April 19 |
| EL LOBO | San Francisco | — | L. April 26 |
| EL SEGUNDO | San Francisco | Seattle | L. April 9 |
| EL TORO | New Orleans | Campana | L. Port Said April 17 |
| ELAX △ | Novorossisk | Rotterdam | Arr. Mar. 30. In port April 28 |
| ELBRUZ | Tyne | Amsterdam | Arr. In port April 28 |
| ELISE MARIE | Sabine | Rotterdam | L. Norfolk, Va., April 24 |
| ELSINORE | Panama | Port San Luis | Arr. April 13 |
| EMANUEL NOBEL | Kustendje | Hamburg | Arr. April 23 |
| ENERGIE | Baltimore | Tampico | Pd. Sand Key April 16 |
| ERIVAN | Batoum | Dunkirk | Pd. Algiers April 24 |
| ESCALONA | New Orleans. | Tampico | Cl. Apr. 7 |
| ESTURIA | Soesoe | Singapore | Arr. April 24 |
| EUPION | New York | Antilla | L. April 11 |
| EUPLECTELA △ | Balek Pappan | Singapore | Arr. April 10 |
| EXCELSIOR | Philadelphia. | Aarhus | Pd. Delaware B'water Apr. 19 |
| F. A. TAMPLIN | Puerto Mexico | Southampton | L. Norfolk, Va., April 24 |
| FRANCE MARIE (Belgian Ship) | — | — | T. between Tampico and Port Arthur |
| FUMI MARU | — | Yokohama | Arr. Apr. 5 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port April 7. |
| GENESSE* | Maryport | Liverpool | Arr. April 29 |
| GEORGIAN PRINCE | Port Arthur. | Nordenham | Arr. April 24 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Port Townsend ab't Apr. 29 |
| HAGEN | New York | Hamburg | L. April 22 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | Pisagua | San Francisco | L. Tocopilla April 12 |
| HARRY LUCKENBACH | Tampa | Baltimore | Arr. April 4 |
| HAVRE | Townsville | Singapore | L. April 15 |
| HELIOS | New York | Hamburg | Pd. Dungeness April 27 |
| HERA | Rotterdam | Port Arthur | Arr. Apr. 26. |
| HERBERT G. WYLIE | Tampico | Galveston | 250 miles S. of Galveston Bar April 20 |
| HERMIONE | Portland | Port Arthur. | Pd. St. Michael's April 22 |
| HESPERUS | San Francisco | Pisagua | Arr. April 24 |
| HORLEY | Tuxpan | New York | Arr. April 25 |
| HOTHAM NEWTON | Port Arthur. | Toulon | L. April 19 |
| HYRCANIA | Tyne | Port Arthur | Arr. ab't Apr. 24 |
| ILLINOIS | New York | Port Arthur | Sp. Apr. 13, 36 m. S. of Cape Romain |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IMPOCO | Kustendje | Portici | Pd. Dard. Apr. 21 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | 60 miles E. of Land's End Apr.29 |
| J. B. AUG. KESSLER △ | Rangoon | Gibraltar | L. P. Said Apr. 28 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. April 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Kustendje | L. St Nazaire April 16 |
| JUNO △ | Miri | Palembang | Arr. April 21 |
| JUPITER | New York | Hamburg | Arr. April 26 |
| KANAKUK | San Francisco | Bombay | Arr. April 8 |
| KASBEK | Antwerp | Batoum | Pd. Ushant Ap.26 |
| KIOWA | Port Arthur. | Stettin | Pd. Butt of Lewis April 29 |
| KIYO MARU | Shimonoseki. | Valparaiso | Arr. ab't Apr. 20 |
| KOMETA | Kustendje | Rouen | Sunk by expn. off Sidi Ferruch Ap.26 |
| KREMLIN | Batoum | ThamesHaven | Pd. Sagres Apr.26 |
| KURA | Batoum | Manchester | Pd. Sagres Apr.28 |
| LA CAMPINE | Antwerp | New York | Off Isle of Wight April 17 |
| LA FLANDRE | New York | Antwerp | Cl. April 20 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LA HABRE | Tyne | San Francisco | Arr.Punta Arenas (Mag.) ab't Apr.15 |
| LA HESBAYE | Philadelphia. | Antwerp | Arr. April 26. In port April 28 |
| LACKAWANNA* | Manchester | New York | Arr. ab't Apr. 21 |
| LAMPO | Messina | — | Pd. Gib. April 28 |
| LE COQ □ | Bilbao | New York | L. April 19 |
| LEDA | Baton Rouge | Hamburg | L. April 25 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port April 20 |
| LUCELLUM | Portsmouth | Port Arthur. | L. April 18 |
| LUCERNA | Gemsah | Suez | Arr. April 25 |
| LUCIGEN | — | — | Pd.Dover April 25 Bound west |
| LUCILINE □ | Rouen | New York | Pd. Scilly Apr.18 |
| LUMEN | New York | Marseilles | Arr. April 26. In port April 27 |
| LUTETIAN □ | Rouen | New York | Pd. Lizard Apr.18 |
| LUX □ | Palma | Barcelona | L. April 27 |
| LUZ BLANCA | Taltal | Callao | Arr. ab't Apr. 21 |
| MAKKAVEI | Salonica | Batoum | Cl. Constantinople April 26 |
| MANNHEIM | New York | Copenhagen | Pd. Dunnet Head April 28 |
| MARGARETHA | London | Tyne | Arr. April 25 |
| MASCONOMO | San Francisco | Shanghai | Arr. ab't April 22 |
| MASSASOIT | Bombay | Karachi | Arr. April 5 |
| MEPPEN | Rotterdam | Kustendje | L. Lisbon Apr. 26 |
| METEOR | Odessa | Vladivostock. | Arr. Port Said April 25 |
| MEXICAN PRINCE | Shanghai | Chinkiang | Arr. April 25 |
| MIJDRECHT | Rotterdam | Braila | Arr. April 27 |
| MINA BREA | San Francisco | Yokohama | L. April 11 |
| MIRA | Novorossisk | Brunshausen | Arr. Cuxhaven April 26 |
| MITRA △ | Rangoon | Port Said | Arr. Colombo April 27 |
| MOHAWK* | Philadelphia. | Tampico | Pd. Sand Key April 13 |
| MOHICAN | Stockholm | Port Arthur | L.Falmouth Ap.22 |
| MUREX △ | Singapore | Melbourne | Arr. April 17 |
| NARRAGANSETT | New York | London | 200 m. S W. Brow Head April 30 |
| NATICA △ | Rotterdam | Tyne | Arr. April 19 |
| NELSON | Puerto Pedro | New Orleans | 180 m. N.W. Tortugas April 19 |
| NEW YORK* | Amsterdam | Baton Rouge | Arr. Norfolk, Va., ab't April 24 |
| NIAGARA | San Francisco | Chinkiang | L. Mar. 29 |
| NORMAN BRIDGE | New York | Tampico | 400 m. W. of Key West April 16 |
| OAKWOOD | London | Liverpool | Arr. Mar. 29. In port April 21 |
| OBERON | San Francisco | Ancon | L.San Luis Mar.21 |
| OCEAN | Philadelphia. | Amsterdam | L. April 22 |
| OILFIELD | Tyne | New Orleans | Pd. Lizard Apr. 13 |
| ORIFLAMME □ | New York | Cette | Arr. April 25 |
| OSAGE | Tampa | Tuxpan | L. April 18 |
| OTTAWA* | Avonmouth | London | Arr. April 25. In port April 28 |
| OURAL | Batoum | Hamburg | Pd. Dover Apr.28 |
| PALEMBANG △ | Karachi | Abadan | L. April 21 |
| PATELLA △ | Novorossisk | Shanghai | L. Hong Kong April 24 |
| PAUL PAIX | New York | Calais | L. April 22 |
| PAULA | Sabine | Dantzig | L. April 24 |
| PAWNEE | Hamburg | Novorossisk | Pd. Sagres Apr. 29 |
| PECTAN | San Francisco | Antofagasta | L. Port San Luis Mar. 21 |
| PENNOIL | Rotterdam | Philadelphia. | Pd. Lizard Apr.16 |
| PETROLEINE | Tync | Philadelphia. | Pd. Cape Wrath April 26 |
| PETROLEUM | Portsmouth | Invergordon. | Signalled April 5 20 m. N.E. Caister |
| PHOEBUS | San Francisco | Pisagua | L. April 17 |
| PINNA □ | Port Arthur. | Avonmouth | Arr. Newport News April 25 |
| PONUS | San Francisco | Madras | L. Mar. 6 |
| POTOMAC* | Sabine | Liverpool | L. April 15 |
| POWHATTAN | Singapore | — | Arr. Suez Apr. 25 |
| PROMETHEUS | Iquique | San Francisco | L. April 14 |
| PRUDENTIA | Guanica | — | L. April 24 |
| PURELIGHT | Hamburg | Philadelphia. | Pd. Lizard Apr. 27 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | L. Mar. 28 |
| RADIOLEINE | Havre | Port Arthur. | L. April 16 |
| RANELLA △ | Batoum | Singapore | L. Suez April 27 |
| RENDOVA (Br. Bq.) | New York | Seville | L. April 4 |
| RICHMOND | Seattle | San Francisco | L. April 5 |
| RION | Tyne | Port Arthur | Pd. Dunnet Head April 26 |
| ROCK LIGHT □ | Hamburg | Tees | Arr. Mar. 25. In port April 27 |
| ROMANY △ | Thames Haven | Malta | Pd. Prawle Point April 27 |
| ROSALIND | Port Arthur. | Sheerness | L. April 22 |
| ROTTERDAM | New York | Rotterdam | Arr. April 28 |
| ROUMANIAN □ | Kustendje | Amsterdam | Arr. April 29 |
| ROUMNIAN PRINCE | — | Port Arthur | Arr. April 23 |
| RUSSIAN PRINCE | Tampico | Aransas | Arr. April 17 |
| SABINE RICKMERS | Singapore | Palembang | L. April 24 |
| SALAHADJI △ | Singapore | Fusan | L. April 20 |
| SAMOSET | Kuchinotsu | San Francisco | L. April 9 |
| SAN ANTONIO | Rotterdam | Tuxpan | Pd. Dover Apr. 12 |
| SAN BERNARDO | Thames Haven | Rotterdam | Arr. Mar. 10. In port April 28 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Puerto Mexico | London | 90 m. S. Diamond Shoal April 17 |
| SAN EDUARDO | Tuxpan | Vera Cruz | L. April 19 |
| SAN FRATERNO | Southampton | Mexico | Off Wight Apr. 28 |
| SAN GREGORIO | Tuxpan | New York | Arr. April 26 |
| SAN HILARIO | London | Tuxpan | Pd.Lizard Apr.13 W. com. Apr. 14 |
| SAN ISIDORO | Tuxpan | New York | L. April 22 |
| SAN JERONIMO | Borneo | Portsmouth | Arr. Port Said April 27 |
| SAN JOAQUIN | Antofagasta | Port San Luis | Arr. April 21 |
| SAN LORENZO | Norfolk. Va. | Pola | Pd. Cape Henry April 17 |
| SAN MELITO | Tyne | Mexico | 25 m.N.E. Caister April 23 |
| SAN RICARDO | Borneo | Portsmouth | Pd.Perim Apr. 24 |
| SAN SILVESTRE | Dublin | New York | Arr. April 28 |
| SAN TIRSO | Trieste | Puerto Mexico | L. April 21 |
| SAN URBANO | Puerto Mexico | Rio Janeiro | L. April 7 |
| SAN VALERIO | London | Philadelphia. | Pd. Lizard Apr. 15 |
| SAN WILFRIDO | Tyne | Port Arthur | Pd. Lizard Apr. 10 |
| SAN ZEFERINO | Norfolk, Va. | Dover | L. April 27 |
| SANTA MARIA | Honolulu | — | Arr.Punta Arenas (Mag.) Apr. 24 |
| SANTA RITA | Panama | Vancouver | Arr. ab't April 7 |
| SATANTA | San Francisco | Kuchinotsu | L. April 2 |
| SAXOLEINE | Tync | Philadelphia. | Arr. April 19 |
| SEBASTIAN | Kustendje | Havre | Arr. Malta Apr.15 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port April |
| SEQUOYA | San Francisco | Japan | L. Mar. 25 |
| SERVIAN □ | London | Port Arthur | Pd.Lizard Apr.27 |
| SHABONEE | Taku | San Francisco | Arr. ab't April 28 |
| SILVIA | Sheerness | Persian Gulf | Pd. Aden Apr. 16 |
| SIOUX | San Francisco | Pisagua | L. April 19 |
| SIRIUS (Ger.) | Portici | Kustendje | L.Messina Apr.25 |
| SOCONY | Tampico | New York | L. Mar. 31 |
| SOYO MARU | — | — | Cd. Perim Apr.15 |
| SPLENDOR | New York | Savona | L. April 15 |
| STAG | Liverpool | Antilla | L. April 29 |
| STANDARD | Amsterdam | Galveston | L. Norfolk, Va., April 21 |
| STROMBUS △ | Port Arthur | Sheerness | Pd. Cape Henry April 17 |
| SULTAN VAN LANGKAT △ | Singapore | Tuxpan | L. April 21 |
| SUNLIGHT (Br. Bq.) | Liverpool | San Domingo | Spoken Mar. 24 48 N. 7 W. |
| SURAM | Blyth | Kustendje | Pd. Dard. Apr. 24 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port April 28 |
| SVIET | Alexandria | Kustendje | Cl.Constantinople April 23 |
| TASCALUSAH | Calcutta | San Francisco | Arr. Sabang ab't. April 3 |
| TATARRAX | Calcutta | Hong Kong | L. Mar. 19 |
| TEAKWOOD | New York | Sheerness | L. April 26 |
| TECUMSOH | Tampico | New York | Arr. April 10 |
| TELENA △ | Abadan | Bombay | Arr. April 23 |
| TEREK | Port Arthur | Manchester | L. New Orleans April 11 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. In port April 13 |
| TIFLIS | Tees | Braila | Pd.Algiers Ap.24 |
| TONAWANDA* | Sunderland | Rotterdam | Arr. Mar. 13. In port April 27 |
| TRINCULO | San Francisco | Victoria, B.C. | Arr. ab't Apr. 26 |
| TRINIDADIAN | Port Tampa | Tampico | 10 miles W. of Egmont Key Ap.18 |
| TRITON | Baton Rouge | Rotterdam | L. April 25 |
| TROCAS △ | Soesoe | Singapore | Arr. April 22 |
| TURBO △ | Tsingtau | Singapore | L. April 16 |
| UNCAS | San Francisco | Shanghai | Arr. Mar. 31 |
| VEDRA | Antwerp | Tyne | Arr. April 9. In port April 14 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Tyne | Arr. April 22 |
| VITRUVIA | Thames Haven | — | Pd. S'thend Ap. 28 |
| VOLCANUS △ | Sourabaya | Balek Pappan | L. April 24 |
| VOLUTE △ | Barrow | Tyne | Arr. April 1. In port April 13 |
| WABASHA | San Francisco | Moji | L. April 6 |
| WANETA | New Orleans. | Tampico | 100 m.S.W.of S.W. Pass Light Ap. 5 |
| WAPELLO | Liverpool | New York | Arr. April 25 |
| WASHINGTON | Tuxpan | Baltimore | Arr. April 27 |
| WEEHAWKEN | Port Arthur. | Antwerp | L. April 21 |
| WIELDRECHT | Abadan | Rotterdam | L. Algiers Apr.21 |
| WILLIAM F. HERRIN | — | — | T. Pac. Coast N.A. |
| WILLKOMMEN | Malmo | Shields | Arr. April 29 |
| WINAMAC | San Francisco | Saigon | Arr. ab't April 13 |
| WOTAN | Hamburg | New York | Pd. Lizard Apr. 28 |

# The Petroleum Review.

*Founded by* PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Oilfields of England.

NOW that British capital has been invested to such an enormous extent in almost every portion of the globe in a search for oil, and in view of the dependency of the British Admiralty upon oil fuel, it is not at all surprising to find that the possibilities of finding the valuable liquid within the United Kingdom are commencing to be appreciated upon many hands. Many there are who have long clung to the belief that the British Isles possess stores of oil wealth which can be turned into good commercial account, but up to the present in spite of many particularly promising indications, the necessary capital has not been forthcoming for the development of the several deposits. The latest evidence in this respect, however, is that in the near future a really serious attempt is to be made in at least three localities, and it is certain that the results achieved and the progress recorded in the meanwhile will be watched with the greatest interest.

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### The Prospective Developments near London.

THERE are many romances connected with the history of petroleum, but what will in time to come be doubtless regarded as one of them is the serious investigation which has for some time been in progress with the aim of determining the value of the oil shales found upon a certain portion of the Greenwich Hospital estates. A representative of the REVIEW paid a visit to the locality during the present week, and learned that though the search is still in progress, nothing definite can be given out to the public at large as to the possibilities of commercially developing the deposits. The fact, however, remains that officials of the Admiralty have for some months past been at work upon tracing certain oil shales which are known to exist in the formations encountered, and not only have some of the shales been unearthed, but they have been analysed. Whatever may be the results of the analysis — and rumour has it that they are favourable—the potentialities of the discovery are of enormous importance. It is already clearly established that oil shale deposits do exist over a certain portion of Greenwich, and what is more that the thickness of the beds may warrant active operation of the shale beds. This being so, then we seem tolerably near to the time when works similar to those already in existence in the Midlothians—but, of course, upon a much smaller scale—may be erected and operated with a shale produced but a few miles from the centre of the greatest city of the world.

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### The Search for Liquid Oil.

BUT be this as it may, the search for liquid oil is henceforth to be steadily continued in two or three promising localities in this country. In Nottinghamshire, where a naturally filtered oil was discovered some year or so ago, interest is growing, while in one or two collieries in the North Staffordshire district recent extensions of coal seams have led to the appearance of almost precisely the same liquid oil as was commercially produced and refined in the neighbourhood of Longton some fifteen or more years ago. Then we have the promising localities in Buckinghamshire, where a tremendous blow-out of natural gas in a well some six or seven years ago caused many to view the future of oil production in England with more favour than they had previously done, while as to the Sussex natural gas belt, we learn that important developments are on the eve of consummation. All this causes the careful student to pause and wonder, not only what may be the ultimate outcome of the pioneer work which will shortly be undertaken in this direction, but at the palpable lack of enterprise which has allowed the indications known for many years past to have remained so long without attracting greater attention.

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### The Cushing Oilfield.

THE article which we reprint in this issue respecting the Cushing field of Oklahoma will be perused with considerable interest, for not only is the opening of such prolific territory of great importance to the future of America, but this importance is considerably intensified by reason of the fact that the enormous output of the field—estimated at least at 70,000 barrels per day—is of that high-grade Pennsylvanian character so much desired by American refining interests. In spite, however, of the present production of the field, its future possibilities are of an unknown quantity, inasmuch as there are several producing strata, though so far only one has been operated—the Bartlesville. Providing sufficient pipeline and storage facilities were in the field, local producers assert that within three months a daily production of 200,000 barrels could easily be recorded even from the wells already drilled; but seeing that so comparatively few wells have been put down upon the 30,000 acres which come within the defined field, it is easy to see that the Cushing district has really no parallel to-day in the high-grade producing fields of the world. The American fields have, since the commercial career of the petroleum industry commenced, furnished many surprises, but without doubt one of the most striking is the bringing in and the development of Cushing.

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## THE GERMAN MONOPOLY OIL BILL.

### A Proposition Shelved.

The Berlin correspondent of the Review wires that inasmuch as the Special Committee of the Reichstag, which was appointed to discuss the various proposals for the establishment of a kerosene monopoly in Germany, has decided not to hold any further meetings for at least two months, by which time the Reichstag will have terminated its session, it is generally assumed in Berlin that there is now little prospect of the suggested oil monoply being carried through.

The statement in the last part of the sentence confirms the opinions previously expressed in the Review.

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## DEVELOPING THE STATE OIL LANDS IN ROUMANIA.

Since negotiations were commenced between the Roumanian Government and the oil companies with a view to fixing the price for residuals, rumours have been in circulation to the effect that the Government purposed ceding their oil lands to a new Roumanian company for exploitation. It is stated that the Government would participate in the undertaking, and they would thereby be enabled to procure the liquid fuel they require on much more favourable terms than has hitherto been the case. It is added that subscriptions have already been opened to obtain the necessary capital.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended May 22nd was 118,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended May 3rd was 250,710 poods, or about 4,044 tons. The total production for the year from January 14th to May 3rd was 4,494,865 poods, or about 72,498 tons. The total production for the corresponding period last year was 4,636,295 poods, or about 74,779 tons. Price of crude oil at Baku is now 37¾ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended May 3rd was 23,347 poods, or 377 tons.

European Oilfields Corporation, Ltd. — The production for the week ended May 3rd was 112,700 poods, or 1,817 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended May 2nd was 120,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended May 2nd was 19,613 poods (316 tons).

Maikop New Producers, Ltd.—Production for week ended May 2nd was 7,069 poods (114 tons).

British Maikop Oil Company, Ltd.—Production for week ended May 3rd was 11,036 poods, or 178 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended May 2nd, 94,843 poods, or 1,530 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended May 5th was 404,812 poods, or 6,529 tons. Corresponding period last year, 2,117 tons.

Bibi-Eibat Oil Company, Ltd.—Production for the week ended May 3rd was 88,200 poods, or 1,423 tons.

Maikop Midland.—Production at Krimskaya for week ended May 2nd was 6,000 poods, or 97 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended May 2nd was 17,289 poods (278 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended May 2nd was 800 poods (13 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended May 2nd was 1,700 poods, or 27 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended May 5th, 170,700 poods, or 2,753 tons.

DR. T. O. BOSWORTH,
D.Sc. (London), M.A. (Cambridge), F.G.S.
*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*
Consulting Geologist.
*(Formerly of His Majesty's Geological Survey.)*
Office: 12, St. Giles Street,
Northampton.

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# THE RUSSIAN PETROLEUM INDUSTRY.

## A REVIEW FOR THE FIRST QUARTER OF THE YEAR.

*Specially translated from the " Neftannoie Dielo."*

THE present year commenced with a very small quantity of petroleum and petroleum products in store in the Baku district, for on January 1st there were altogether 66,000,000 poods of petroleum products, while the stores for the last five years on the same date amounted, on an average, to 76,900,000 poods. The above figures include 25,400,000 poods of residuals, as against an average for the last five years of 40,400,000 poods. This small quantity of oil in storage is explained by the fact that there was great demand for petroleum and products on the inner markets, and therefore the Baku stores sent large quantities inland before the close of the last navigation. At the same time the production of crude oil during November and December did not exceed the average, and therefore could not increase the quantity of oil in stock.

During the preceding year, when the petroleum trade was in a normal condition, prices usually dropped down during the two and a-half months following the close of the navigation, after which they again increased. Beginning from 1910 this fact has no longer been observed, for prices steadily increased, but in 1913 the former order of things was again resumed, and the prices from October up to the end of December fell, decreasing from 48-50 copecs to 35 copecs, at which figure oil stood at the commencement of the year.

The production on the four main areas during the first quarter of 1914 has amounted to 99,700,000 poods (including 4,600,000 poods of spouted oil), as against 101,100,000 poods (including 1,700,000 poods of spouted oil) produced in 1913, 100,500,000 poods (including 600,000 poods of spouted oil) produced in 1912, and 103,900,000 poods (including 200,000 poods of spouted oil) produced in 1911. Thus the production for the first quarter of this year is smaller than that during the last three years, notwithstanding the increase in boring, as can be seen from the following table :—

| | No. of feet bored. | No. of wells started in boring. | No. of wells completed. |
|---|---|---|---|
| 1911 | 313,621 | 181 | 135 |
| 1912 | 376,677 | 252 | 227 |
| 1913 | 456,183 | 319 | 225 |

There is now observed a small decrease in the boring activity, for in January there were only bored 40,852 ft., and in February 34,671 ft. As yet the results of boring are lamentable, and, on the other hand, the non-authorisation by the senate to the last auctions postpones the possibility of boring work on the new areas until the future. The new wells entering into exploitation show small productivity. Thus the average daily production per well was in January 382 poods, and that of the new wells alone 457 poods. The following table shows the production of the principal firms during the quarter as compared with the corresponding quarter of last year :—

| | First quarter of 1914. Poods. | 1913. Poods |
|---|---|---|
| Aramazd | 1,700,000 | 1,700,000 |
| Asadullaeff | 1,600,000 | 1,800,000 |
| Baku Petroleum Company | 5,100,000 | 4,700,000 |
| Baku Russian Nafta Society | 1,600,000 | 1,400,000 |
| Benkendorf | 1,400,000 | 1,300,000 |
| Bebe-Aibat Petroleum Company | 1,100,000 | 1,500,000 |
| European Petroleum Company | 1,200,000 | 1,300,000 |
| Zoubaloff | 7,200,000 | 3,100,000 |
| Kavkas Company | 1,700,000 | 2,500,000 |
| Caspian Society | 3,500,000 | 3,600,000 |
| Caspian and Black Sea Company | 6,700,000 | 6,700,000 |
| Mantascheff & Co. | 5,900,000 | 5,900,000 |
| Melikoff | 1,000,000 | 1,600,000 |
| Mirzoeff Bros. | 3,600,000 | 3,200,000 |
| Moscow Caucasian Petroleum Company | 2,900,000 | 3,600,000 |
| Nagieff | 1,600,000 | 2,000,000 |
| Naftalan | 1,300,000 | 1,300,000 |
| Nobel | 12,600,000 | 13,700,000 |
| Oleum | 1,500,000 | 1,200,000 |
| Pitoeff | 2,400,000 | 3,900,000 |
| Runo | 2,300,000 | 3,100,000 |
| Russian Nafta Society | 2,900,000 | 2,500,000 |
| Schibaieff | 1,200,000 | 1,300,000 |

The production of the above companies is by 900,000 poods less than during the first quarter of 1913. Altogether the production of all the firms during this quarter is by 1,400,000 poods less. The hand-dug production on the main areas has also decreased ; it amounted altogether to 1,820,000 poods. If this continues the production from hand-dug wells for the year will amount to but 7,000,000 to 8,000,000 poods, as against 15,000,000 poods last year. This is explained by the application of strict measures regulating the production and the prohibition of boring below certain depths.

At Surakhani the production maintains at a high level and amounts to 11,700,000 poods, which is higher than the average production per quarter in 1913, which amounted to 9,900,000 poods. Boring is also more energetic at Surakhani, amounting on an average to 10,150 ft., as against 7,000 ft. in 1913. The Binagadi area has also increased its production, viz., there was obtained from this area about 4,000,000 poods during the

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quarter. The production on the Isle of Tcheleken for the three months may be estimated at 800,000 poods. At Grosny there is a considerable increase in boring activity, and the number of bored feet is now expressed in very high figures, viz., during January 27,230 ft. were bored, and in February 24,899 ft. Correspondingly, the production at Grosny increases, viz., in January it amounted to 7,300,000 poods, in February to 7,400,000 poods, and in March to about 8,000,000 poods.

Thus for the year April, 1913, to April, 1914, the production will be 78,900,000 poods, as against 66,700,000 poods obtained during the preceding operating year.

The production at Maikop continues to decrease, being during the quarter below 400,000 poods per month.

As regards the Emba area, no information is yet available.

Taking into consideration the operating year, that is to say, from April to April, the petroleum production in Russia for the last three years was as follows :—

| | 1911–12. Poods. | 1912–13. Poods. | 1913–14. Poods. |
|---|---|---|---|
| Four main Baku areas .. .. | 422,100,000 | 419,600,000 | 387,300,000 |
| Hand-dug wells .. | 6,000,000 | 15,000,000 | 11,000,000 |
| Surakhani .. | 22,000,000 | 33,800,000 | 46,300,000 |
| Binagadi .. .. | 8,200,000 | 10,600,000 | 15,500,000 |
| Isle of Swatoi .. | 2,600,000 | 3,700,000 | 4,500,000 |
| Total for Baku District .. | 460,900,000 | 482,700,000 | 464,600,000 |
| Grosny District .. | 75,300,000 | 66,700,000 | 78,900,000 |
| Maikop District .. | 8,600,000 | 7,600,000 | 4,600,000 |
| Isle of Tcheleken .. | 12,000,000 | 12,000,000 | 8,000,000 |
| Emba District .. | — | 1,500,000 | 6,000,000 |
| Total .. .. | 556,800,000 | 571,500,000 | 562,100,000 |

Thus the production for the last operating year is slightly lower than that of the preceding year.

The stores of petroleum and petroleum residuals in the Baku refining district to the opening of the navigation, March 1st (o.s.), amounted to 26,900,000 poods of crude oil, 54,300,000 poods of residuals, 13,400,000 poods of kerosene, 2,900,000 poods of lubricating oils, 2,400,000 poods of solar oil, and 2,000,000 poods of products; totalling 101,900,000 poods, as against 108,800,000 poods in store on the same date of the preceding year, 1913.

The exports of petroleum products from Batoum and Novorossisk is proceeding at practically the same rate as in 1913. During January-February there were exported from Batoum 4,800,000 poods of kerosene, as against 4,300,000 poods exported during the same period in 1913, and 1,500,000 poods of lubricating oils, as against 1,900,000 poods. The exports from Novorossisk consist principally of benzine, of which during the two months 1,700,000 poods were exported, as against 1,200,000 poods during the same period in 1913.

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## ROUMANIAN PETROLEUM EXPORTS DURING MARCH.

The total exports of Roumanian petroleum products during March amounted to 72,950 tons, as against 83,063 tons exported during March, 1913, thus showing a decrease of 10,113 tons. The exports of the various products to the various countries are shown in the following table :—

| | Residuals. Tons. | Kerosene. Tons. | Benzine. Tons. |
|---|---|---|---|
| Algiers ... ... | — | 192 | — |
| England ... ... | 7,162 | 4,496 | 739 |
| Austria-Hungary ... | 3,587 | 28 | 173 |
| Bulgaria ... ... | 435 | 111 | 177 |
| Egypt ... ... | — | 7,919 | 792 |
| France ... ... | — | 13 | 2,072 |
| Germany ... ... | 3,039 | 370 | 5,023 |
| Greece ... ... | 174 | 3,948 | 89 |
| Italy ... .. | 13,829 | 1,896 | 1,033 |
| Turkey ... ... | 860 | 3,617 | 35 |
| Servia ... .. | 9 | — | 14 |
| Holland ... .. | — | 1,142 | 7,196 |
| Russia ... ... | — | — | — |
| Totals ... ... | 29,095 | 23,732 | 17,353 |

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# THE CUSHING FIELD OF OKLAHOMA.

*Reprinted from the "Oil City Derrick."*

## A High-grade Producing Field with an Output of 70,000 Barrels Daily.

Cushing is to-day the greatest high-grade oilfield in the world. Six months ago it was considered a dead one. Through the discovery of the prolific Bartlesville sand it has come back with a vengeance. If there were pipeline and storage facilities to care for all the oil that could be produced by turning loose the wells that are already completed the production of the pool could be increased in a week's time from 70,000 barrels, its present capacity, to 100,000 barrels, and in less than 90 days to 200,000 barrels a day.

Every gallon of storage in the field is filled and the tanks are slopping over. From 3,000 to 5,000 barrels are going to waste daily. Tiger Creek is filled with oil. Hastily constructed dams have been thrown across this stream at strategic points and there is now held back in these different lakes fully 50,000 barrels of crude. A nice question is probably ahead for the Courts to decide as to the ownership of this oil. W. E. Nicodemus, of Oklahoma City, and George Maddox, of Cushing, have dammed Tiger Creek on the Robinson Mickey lease and have succeeded in impounding 30,000 barrels. They have constructed earthen storage back from the creek and are pumping the oil into this hastily improvised reservoir. They have secured an agricultural lease on the lands and claim the oil through their ownership of the surface rights to the land. T. B. Slick owns the oil lease on the land and will claim the oil because of the terms of the lease, which give him the exclusive oil rights. It is easy to see how other complications may arise if others make claim to the oil because of having produced it. The report was also current in the field that two former tool-dressers had rigged up a pumping outfit whereby they are taking out of the creek several hundred barrels of oil a day.

Besides the hastily constructed earthen reservoirs, steel tanks are rising on every hand like mushrooms over night. On the road from Cushing to Drumright, a distance of 14 miles, there can be seen each day a solid string of teams a mile and a-half in length, the wagons all loaded with material for steel storage tanks. From every point of the compass material is being rushed to the pool, teams fording the streams, covering the highways and threading the trails through the timber. The teamsters are reaping a harvest, the wages varying from $6 to $9 a day. Nearly all are working overtime, many getting paid for all the way from 30 to 40 days in a month's time.

In quality as well as quantity, Cushing oil surpasses that in any other district of the Mid-continent field. With its usual foresight, the Prairie Oil and Gas Company has been quick to take advantage of the situation, and, by recent heavy sales through its eastern outlets, it is rapidly emptying present storage, providing new tankage, and increasing its pipeline facilities to care for the Cushing product. When the excitement has subsided and the field has again settled down to normal conditions it will be found that the Prairie will have disposed of a large amount of its present comparatively inferior grades of oil and replaced it with from 10,000,000 to 15,000,000 barrels of the high-grade Cushing product. As proof of these statements, the Prairie is now preparing to build 20 of the 55,000-barrel variety of steel storage tanks on a recently acquired tract of land one mile south of Terlton. It is safe to say that these will be followed by more as the occasion demands. This company is not making public its plans, but it is a matter of observation that it is putting in numerous loops on its trunk lines and increasing its pumping facilities, while field gossip is to the effect that it is making preparation for immediate construction of eastern extensions that will give it an additional capacity of 20,000 barrels a day.

All the other large interests in the district are following the lead of the Prairie in building storage. The several interests controlled by White & Sinclair, have purchased the plant of the Union Pipe Line Company from the Cosden interests, including a pumping station in the field and a 4-inch line, leading from the field to loading racks near Cushing. They have also purchased 320 acres of land, one mile east and three miles south of Cushing, along the tracks of the Santa Fé Railroad, for a tank farm and have a survey made for 72 tanks of the 55,000-barrel variety. The present 4-inch line will be paralleled with another 4-inch line to a point directly north of the tank farm, where both 4-inch lines will empty into a 6-inch line three and a-half miles in length, leading to the storage tanks. Material for 15 of these tanks has been ordered. One tank is now on the ground and in the course of construction, and the material for others is being hauled to the farm from Cushing, while teams are busy grading for the tank sites. T. W. White, engineer in charge of the construction, is on the ground supervising the work. The Gulf and Texas companies are building storage at their southern terminals to care for Cushing oil, while the Pierce Oil Corporation has recently completed three 55,000-barrel tanks at its Sand Springs refinery and has a number more under contract. White & Sinclair will sell their oil to the Cosden refineries.

Other large Cushing interests will build storage tanks on their leases in the field, as follows:—Gunsburg & Foreman, 10 tanks of the 55,000-barrel variety; B. B. Jones, one 37,500 and four 55,000-barrels; T. B. Slick, one 37,500 and four 55,000 barrels; Quaker Oil Company, three 55,000 barrels; Kemp & King, Steel Bros., McMan and Devonian companies, at least one each of the 55,000-barrel variety.

Sufficient storage has already been contracted to provide room for 5,000,000 barrels of oil. There is now being held in storage on the leases 250,000 barrels, 50,000 of which is in earthen reservoirs. This amount will be doubled within the next 60 days. In addition to the storage mentioned, all of the refineries operating on Cushing crude, half a dozen in number, are practically doubling their storage capacity. In this connection it may be mentioned that the Chanute refinery has purchased 30 acres, two miles and a-half north of Cushing, near its tank farm, between the tracks of the Katy and Sante Fé railroads, for a refinery site and will soon begin construction work on a plant and the building of more storage tanks.

Cushing is a rich man's field. It costs approximately $10,000 to complete a producing well. The entire pool is practically controlled by a dozen different interests. Were it possible to shut in the wells, without ruining them, these dozen different interests could get together, observe a shut-down agreement, and stop every barrel of production in the pool, restore the equilibrium of production, and speedily put the market back where it was before the fateful day of April 8th, when the first reduction in the prices of Mid-continent crude was made. As the Cushing producers have started something they cannot stop, the pool will continue increasing in production, and operators in other sections of the entire country, as a consequence, must suffer a loss of practically one-fourth of their gross receipts from the sale of their oil.

The Cushing district is 10 miles in length by half as many in width and embraces practically 30,000 acres of land. As fully one-half of this territory has been proven productive in the Bartlesville sand, it will thus be seen that it has scarcely been pin-pricked. What it is capable of producing in the future can only be a matter of conjecture. The wells are being put to producing natural, and as soon as the flush production subsides, they will be shot when the field will come back another time. It should also be borne in mind that there are several other known sands below the Bartlesville, in the Cushing pool, one of which has been tested and is known to be productive. It will thus be seen that the pool has several more chances of coming back, its future possibilities being an unknown quantity.

The Cushing field is not only the greatest high-grade oil pool in the world, but it is also a marvel in the production of natural gas, the present available supply being estimated at 500,000,000 cubic ft., while many times this amount could be developed if there was any market for it. Wells with a volume of 10,000,000 cubic ft. are the rule, while volumes of 20,000,000 and even 50,000,000 cubic ft. are not uncommon, the initial rock pressure having been gauged as high as 1.540 lbs. Until recently much of this gas was allowed to go to waste, but the Federal Government, through the introduction of the mud-laden process under the supervision of experts from the Bureau of Mines, has helped the producers to shut in most of this waste. As an example of the richness of the territory in natural gas, the Creek County Gas Company, through the recently completed trunk line to Bigheart, is supplying the Quapaw-Wichita lines with a minimum of 25,000,000 cubic ft. a day, all being produced from only nine wells. The maximum capacity of this line is 50,000,000 cubic ft. a day. The Creek County Gas Company is merely a marketing concern, purchasing its gas from the Cushing oil producers for two cents a thousand cubic feet, the gas being metered at the wells. It is operating under the common carrier law of Oklahoma and will soon connect seven more wells with its trunk line, when it will daily take a smal amount of the capacity of each well. The town of Cushing, with a population of 4,000, is supplied with gas from the pool by the Cushing Gas Company. This concern is only a year old and already has 653 meters The domestic rate is 25 cents a thousand and the rate to manufacturers is 10 cents.

Drumright, the principal camp in the pool, is a typica oil town, with a population of 1,500 souls, while 6,000 people get their mail at the post office. It is built on two hills and in the ravine between. All styles of architecture, from the Indian tepee to a brick building, are represented. Its narrow dirty streets are thronged night and day, the mixed population comprising men and women of nearly every race and nation under the sun. There is something doing every minute of the 24 hours in a day in Drumright. Oil is not the only game that is played in the Cushing district. While Drumright has always been comparatively free from the usual run of undesirable camp followers, as much cannot be said for some of the adjacent camps with their road houses, gambling rooms and open bars. As the drillers receive $7 a day, the tool-dressers $6, and other labour in proportion, a large amount of money changes hands in the district every month.

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## BAKU PETROLEUM PRODUCTION DURING MARCH.

The total production of crude oil in the Baku district during March amounted to 37,200,540 poods, of which 25,388,315 poods were obtained on the old areas, 8,845,692 poods on the Bibi-Eybat area, and 2,966,533 poods on the Surakhani area. The above production includes 1,992,000 poods of spouted oil obtained on the Bibi-Eybat area and 416,221 poods of spouted oil on the Surakhani area. There were also obtained at Surakhani 75,950 poods of gas and 112,261 poods of white oil. The production from hand-dug wells amounted to 640,000 poods. The production of the principal firms during the month was as under :—

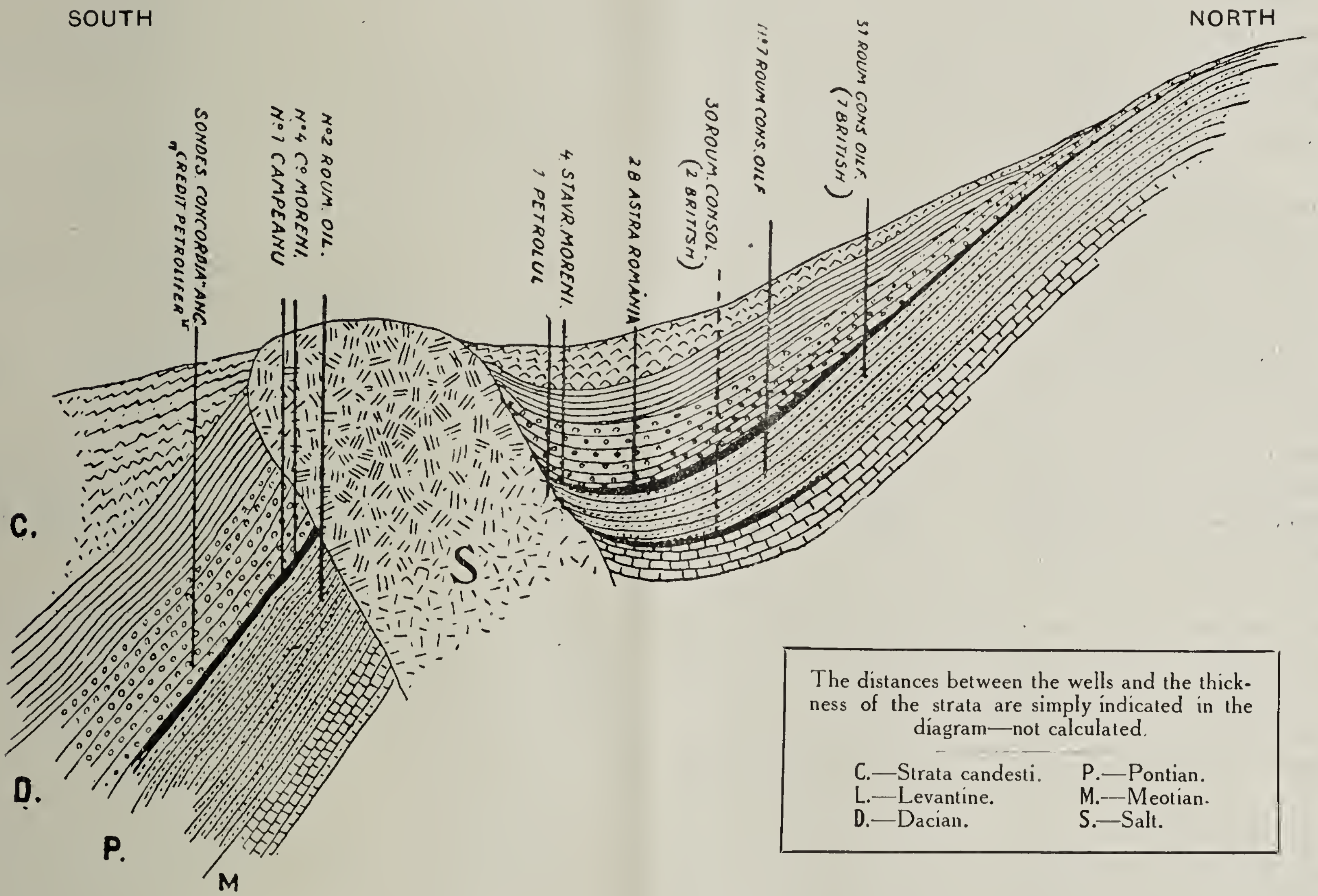
| | Poods. |
|---|---|
| Nobel Bros. ... ... ... ... | 4,957,626 |
| Caspian and Black Sea Company ... | 3,118,130 |
| Zoubaloff ... ... ... ... ... | 2,700,000 |
| Baku Petroleum Company ... ... | 1,896,549 |
| Mantascheff & Co. ... ... ... | 1,755,600 |
| Mirzoeff Bros. ... ... ... ... | 1,350,050 |
| Caspian Society ... ... ... ... | 1,271,830 |
| Russian Nafta Society ... ... ... | 1,119,350 |
| Moscow-Caucasian Society ... ... | 973,000 |
| Asadullaeff ... ... ... ... | 900,253 |
| Benkendorff & Co. ... ... ... | 894,942 |
| Pitoeff & Co. ... ... ... ... | 784,100 |
| Runo ... ... ... ... ... | 741,100 |
| Aramazd Company ... ... ... | 653,610 |
| Rilski Trustees ... ... ... ... | 610,000 |
| Kavkas Company... ... ... ... | 593,400 |
| Nagieff Mussa ... ... ... ... | 571,027 |
| Born ... ... ... ... ... | 549,650 |
| Ter-Akopoff Company ... ... ... | 529,200 |
| European Petroleum Company... ... | 489,500 |
| Oleum ... ... ... ... ... | 487,119 |
| Lianosoff ... ... ... ... ... | 459,380 |
| Naftalan Company ... ... ... | 458,100 |

# The New Bana District of Roumania: AN OPTIMISTIC FORECAST . .

*Translated from the "Moniteur du Petrol Romain."*

By Engineer C. HOISESCO.

Until recently there prevailed the opinion that the northern slope of the anticlinal—Moreni-Gura-Ocnitzi—was not petroliferous. This opinion was based on the non-success of a whole series of wells bored and dug in the salt masses which form the boundary of the exploitation area to the north. But in addition to the six wells bored at Bana, along the Moreni-Ditzeshti road, which have all been abundant at depths varying between 400-900 metres, there were also bored to the north of the district the well Sfetesco, to a depth of over 400 metres, and well No. 21 Astra-Romana, to a depth of 903 metres. Although all these wells have traversed the superior pliocenic strata of the north slope, they have only succeeded in finding petroleum traces in the form of gas. The same applies to the well of the Aquila Franco-Romana Company at Pleasa, bored to a depth of 472 metres. The same state of unproductivity has also appeared on the prolongation of the northern slope towards Gura-Ocnitzi, where the wells bored on the northern flank also only encountered slight exudations of petroleum. The well Dambovitza at Draganeasa has passed the dacian strata and has penetrated into the conglomerates to a depth of 455 metres without having encountered anything but gas. Thus serious and extensive borings have proved the sterility of the northern slope in oil. This part of the district was condemned as totally unproductive, but in 1910 the Astra-Romana, forced by the close of a contract to bore a well at Bana, 500 metres to the north of the line of wells placed along the Moreni-Ditzeshti road, quite unexpectedly struck oil, at 270 metres, in the dacian strata. The well has given violent eruptions, and is now yielding a splendid production. In a short time many other wells, mostly productive, were opened round this well, and are all yielding oil of a superior quality (about 40 per cent. of benzine) from a comparatively small depth. However, it is stated that soon the productivity of these wells became limited to a comparatively restricted area, especially in the directions south, north, and west. It is also stated that the productivity of these strata is due to a local tectonic disposition of the ground favourable to an accumulation of oil—a disposition which affects the secondary synclinal form by the pressure and inclination of the mass of salt towards south. In this anticlinal there has been conserved a roof formed of more recent levantine strata, which roof has rendered possible the storage of petroleum. Toward the north these strata give place to the pontic, which directly appears on the surface.



The distances between the wells and the thickness of the strata are simply indicated in the diagram—not calculated.

C.—Strata candesti.
L.—Levantine.
D.—Dacian.
P.—Pontian.
M.—Meotian.
S.—Salt.

The striking of oil in the wells bored through the dacian strata of the northern slope of Bana, although relieving this district from the decree passed over it of being unproductive, nevertheless does not give great hope for the district as the dacian strata do not here show any general development, and at many points are denuded of the protecting mantle of the younger strata, and therefore are not suitable for the accumulation of petroleum. Only a few months after the striking of oil in well No. 2 Bana, the Astra-Romana struck another oil well at Filipeshti de Padure, that is to say, on the prolongation of the anticlinal Moreni-Gura-Ocnitzi, viz., at a depth of 1,054 metres. This well, after having traversed the unproductive dacian and pontic formations, entered into the meotic and struck oil at the very line of the separation of the meotic and pontic. This strike was of very great importance, not only because of the exceedingly rich petroleum which it produced, but also owing to the fact that it opened quite new horizons for all this district, as it confirmed the theory that under the unproductive pontic formation there lies the meotic, having all the conditions necessary for an accumulation of petroleum. The finding of oil in the meotic strata of Filipeshti has opened prospects for the petroliferous horizons even in the districts already under exploitation, Moreni-Gura-Ocnitzi-Baicoi-Tzintea, and shows that in the geology of petroleum there exists a systematic succession of facts and data, which, if used rationally in the practice of exploitation, must bring real advantages to the petroleum industry.

The strike of the same quality of oil in the well at Bana under conditions similar to that of the Filipeshti wells, leads to the conclusion that the petroliferous horizon of the meotic of Filipeshti extends without interruption over the distance between Filipeshti and Bana, and we therefore expect to find under the dacian formation at present in exploitation at Bana a new petroliferous horizon at about 500 metres from the well at present in exploitation, as it has been proved that all the wells which were deepened below the actual strata have immediately entered into the pontic. Moreover, in the prolongation of the northern slope toward west of Moreni and Gura-Ocnitzi, the productive meotic may again be found. The same argument applies to Baicoi-Tzintea, which is the extreme eastern prolongation of this area. Here again the productive meotic strata may be found below the pontic strata, which were actually encountered in boring various wells, but then the prospects of this important extension of the district Bana-Moreni-Gura-Ocnitzi do not only concern the northern slope, but also the southern flank of the anticlinal of Moreni-Gura-Ocnitzi, although here the pliocenic strata are not to be found in the same normal situation as they are in the northern flank, owing to the various geological transformations which have taken place. The pontic strata has been proved by the No. 2 well of the Roumanian Consolidated Oilfields, Ltd., and therefore we must also expect the presence of the meotic, although at a considerably greater depth than in the northern slope; and consequently, under the horizons at present in exploitation on the southern flank of Moreni, we have all the chances of opening a new horizon at depths which will vary according to the thickness of the pontic.

An exploration well of a depth of about 1,200-1,300 metres will certainly definitely decide the question on which may depend the whole future of this district.

Generally speaking, the last results obtained on the area Gura - Ocnitzi - Moreni - Baicoi - Tzintea (especially from the well No. 30 of the Roumanian Consolidated Oilfields and the wells at Filipeshti) lead us to the conclusion that this zone, which represents the last appearance of the salifere of the most meridional folds of the subcarpathic district, contains large reserves of petroleum in the meotic formation at depths varying, according to local circumstances, between 700 and 1,400 metres.

The productivity of the meotic in this zone is, according to all forecasts, richer than the zone of the upper pliocenic strata already exploited (and considered as the only productive ones), owing to the good conditions of storage (an ideal protecting mantle formed of pontic clayish strata of a thickness of 500-800 metres) and the possibility of being pierced through at a considerably larger area by the salifere mother-rock of petroleum.

It has been stated that owing to orogenetic forces the kernel of the salifere has been pushed upwards, but has only reached the upper pliocenic strata at a few points, while on the whole of the remainder of the zone it has not the strength to pierce the powerful pontic, and it is probable that it has stopped there, rendering the meotic alone prolific in oil, and consequently the meotic has every chance of being productive over the whole extent of the zone, which will be of incalculable importance to the general productivity of the country.

In these conditions the meotic of this area must have prospects even larger than the meotic of the zone of Campina-Bustenari, already known, which is now the richest district in Roumania, as in this area, from a tectonic point of view, the meotic appears precisely similar to the dacian and levantine formations of Moreni-Baicoi. Thus in the Moreni district the future holds events of the greatest importance, the extent of which cannot at the moment be calculated.

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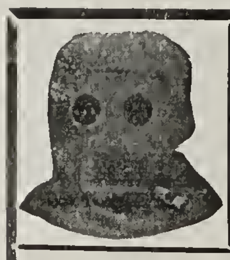
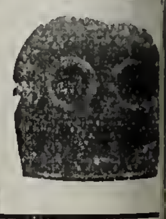
## ROUMANIAN PETROLEUM PRODUCTION DURING MARCH.

The total production of petroleum on the Roumanian oilfields during March amounted to 161,213 tons, as against 132,095 tons obtained during the preceding month, thus showing an increase of 29,118 tons. The production in the various districts was as follows:—

| | Tons. |
|---|---|
| Prahova ... ... ... ... ... | 139,475 |
| Dambovitza ... ... ... ... | 3,530 |
| Buzau ... ... ... ... ... | 14,066 |
| Bacau ... ... .. ... ... | 4,142 |
| Total ... ... ... . | 161,213 |





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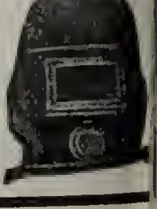

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 22/0-23/0 |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/0-5/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319,181 | 10/- | 6/6-7/0 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 32/3-33/3 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 43/0-43/6 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{7}{8}$-$\frac{15}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 25/6-26/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/9-5/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{8}$-$1\frac{1}{4}$ |
| " " Ord... | 690,000 | fully pd. | 11/9-12/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{8}$-$5\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 656 | 658 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 255 | 257 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,500 | 19,600 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 1,010 | 1,012 |
| Russian Naphtha Society ... ... | 100 | 202 | 204 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 193 | 195 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

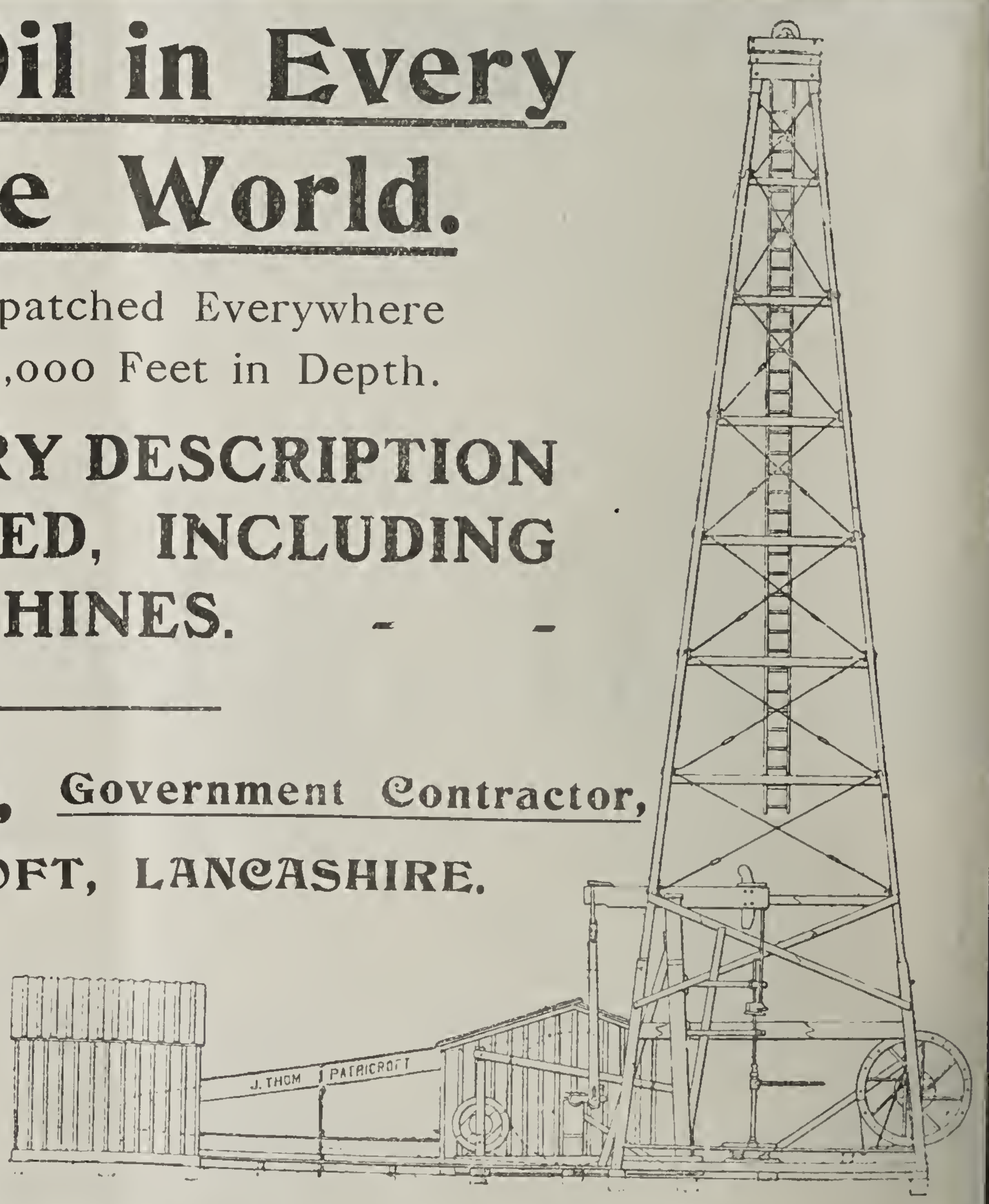
## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 26/9 |
| " 6% Cum. Pref. | 100,000 | £10 | $11\frac{1}{4}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 93/3 |
| " Pref. ... ... ... | 250,000 | £1 | 27/6 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 8/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 38/0 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 30/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 24/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/9 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 82/6 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 15/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 51/6 |
| " "B" Deb. ... | 160,000 | £100 | £145 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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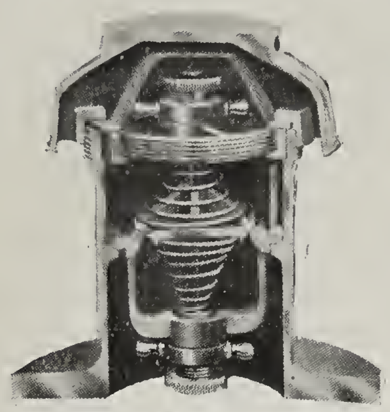

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— THE —
**PETROLEUM REVIEW,**
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, MAY 9, 1914.

## THE OIL INDUSTRY OF GALICIA.

THE recently issued official statistics dealing with the Galician oil industry throw an interesting sidelight on the working methods and general features prevailing on the Galician fields. The details furnish much information upon several aspects of the Galician oil industry which is not frequently obtainable, and thus become at once of sufficient interest to warrant our referring to them somewhat at length. It is pointed out that there are three petroleum districts in Galicia—Jaslo, Drohobycz and Stanislau—the total production of which, in 1912, was 1,144,133 metric tons, and last year 1,100,000 metric tons. The decline from 1911 to 1912 and again from 1912 to 1913 is a further step in the steady decline of the Galician crude oil output which set in immediately after 1909. This constant decrease in Galicia's crude oil output has now assumed so heavy proportions that at the beginning of the current year the administration of the Austrian railways felt compelled to abandon oil-firing on their north-western lines—where it had been installed only a few years ago—and to re-introduce coal as fuel.

The most extensive of the three oil districts is Jaslo, which covers 5,469 hectares, but its importance as an oil producer is dwindling, and of the comparatively small number of ninety-six oil properties in it, only fifty-seven were being exploited in 1912, producing 59,589 metric tons. The district of Drohobycz, on the other hand, contains not more than 63 hectares, but it includes the two famous areas of Boryslaw and Tustanowice, with 306 oil properties, all of which are in regular production and giving the vast bulk of Galicia's crude oil output. Stanislau is the only Galician district whose production has improved, the output of 36,326 tons showing an increase of 1,307 tons against the preceding year.

Oil mining by shaft sinking has been entirely discarded in Galicia. There were, it is true, in the beginning of 1912 twenty-one shafts still in existence, but six of them were filled up in the course of the year, and in the remaining fifteen no work was done. Of the total number of 2,772 boreholes existing at the end of 1912 in the three districts, 316 were still in the course of construction, not having reached the oil-bearing strata; 43 producing bores were worked by hand drills, 914 by steam, 620 by gas motors, 18 were fountains, and the remaining 861 were closed down.

As showing the great depths to which Galician producing wells have to go in the Boryslaw-Tustanowice field, it may be mentioned that 252 bores in the Boryslaw-Tustanowice area exceeded 1,200 metres, the deepest having reached 1,664 metres, or over 5,000 ft. The boring method almost exclusively adopted was the so-called Polish-Canadian system, the hydraulic system being interdicted by the mining authorities, who are prompted in their action by the mistaken belief that the latter method is conducive in attracting water into the oil strata.

For driving the pumping machinery steam power is almost exclusively used, and 598 steam pumps, totalling 23,711 h.p., were at work. In addition to that there were on the fields twenty-nine hand pumps, thirty-nine pumps driven by gas, one by benzine, and four by electric motors (all of them aggregating 821 h.p.), and five crude oil motors of 12 h.p. each. For the transport of the oil and other purposes within the field a very extensive and elaborate pipe service is in vogue. It consists of 485,847 metres of iron piping for the crude oil, 157,601 metres for natural gas, 92,156 metres for steam, and 147,648 metres for water. No less than 1,761,576 metres in the boreholes were lined with hermetic tubing of rolled iron, and 185,440 metres with ordinary sheet iron. Pumping pipes of various diameter totalled in length 504,562 metres. For collecting and storing the crude oil there are 400 iron reservoirs and tanks with a total holding capacity of 92,930 tons, 1,250 wooden tanks holding 56,710 tons, and 532 excavated reservoirs holding 144,250 tons.

It is to be regretted that this official document does not deal either with the circumstances which have brought about Galicia's declining oil production, nor with the possibilities of a materially increased crude oil output taking place in the near future. It is evident, however, to those who closely follow events in the Galician fields, that now the Union of Producers has strengthened its position, a brighter outlook prevails for the industry generally, which is bound to bring about a steady development of Galicia's newer and very prolific oil regions, upon which the future success of the country's petroleum industry now mainly rests.

◆

## THE SITUATION IN MEXICO.

### More Favourable News.

It is stated upon reliable authority that matters are now improving in the Mexican oil regions, and that upon the majority of the fields, operators are at work as usual. It is interesting to note that throughout the recent trouble no damage has been done to either the producing wells or the storage or refinery installations at Tampico and other points.

◆

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## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MAY 4th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. | Since Apl. 27. | From Jan. 1. |
| Belgium .. | — | — | 29,940 | 230,490 | — | — | — | — | — | 32,220 | — | — | — | 1,350 | 29,940 | 264,060 |
| Canada .. | — | — | — | 4,400 | 2,600 | 44,580 | — | — | — | — | — | — | — | — | 2,600 | 48,980 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 16,729,200 | — | 83,400 | — | 1,754,100 | — | 18,566,700 |
| Germany .. | — | 29,250 | 332,010 | 1,067,660 | — | — | — | — | — | — | — | — | — | — | 332,010 | 1,096,910 |
| Holland .. | — | — | — | 3,250 | — | — | — | 55,000 | 5,000 | 2,874,180 | — | — | 6,080 | 6,670 | 11,080 | 2,939,100 |
| Mexico .. | 630,000 | 2,872,970 | — | 11,800 | — | — | — | — | — | 754,170 | 1,321,600 | 3,653,910 | — | — | 1,951,600 | 7,292,850 |
| Roumania .. | — | 6,388,610 | — | — | — | 875,000 | — | — | — | 1,410,250 | — | 1,207,910 | — | — | — | 9,881,770 |
| Russia .. | 879,000 | 2,915,460 | 892,590 | 2,598,890 | — | — | — | — | — | 6,271,880 | — | — | — | 630 | 1,771,590 | 11,786,860 |
| U.S.A. .. | 2,488,660 | 35,918,680 | 1,827,740 | 16,982,970 | — | 91,270 | 860,590 | 27,027,500 | — | 5,490,500 | 1,147,500 | 5,065,030 | 5,420 | 218,450 | 6,329,910 | 90,786,000 |
| Other Countries | — | 3,770 | 4,450 | 130,930 | — | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 4,450 | 140,520 |
| | 3,997,660 | 48,128,740 | 3,086,730 | 21,030,390 | 2,600 | 1 010,850 | 860,590 | 27,083,960 | 5,000 | 33,562,610 | 2,469,100 | 10,014,400 | 11,500 | 1,981,200 | 10,433,180 | 142,803,750 |

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Diesel Distillate for England.**—The oil-tanker "Barneson," owned by the General Petroleum Company, recently left San Francisco on a voyage to England with a full cargo of distillate destined for use in Diesel engines.

**The Californian Oil Fuel Trade.**—The demand for liquid fuel both on the Californian coast and abroad continues to increase. The addition of several new tankers to the fleet now in operation has greatly relieved the congested condition of the market, and the fuel oil business is now in a considerably improved state.

**Oil in a Churchyard.** —There is a church in Ohio whose members are in the fortunate position of receiving a good income from a producing oil well which was drilled at the side of the church some years ago. The well not only provides sufficient money to pay all expenses connected with the church, but the bank account is sufficiently large to enable the congregation to now discuss the question of remodelling the church. The gas from the well operates a gas engine for pumping purposes, and by the use of some of the gas the church is lighted and heated.

◆

## RUSSIAN.

**Liquid Fuel for the Railways in the Kazan Province.**—The administration of railways in the Kazan province has contracted for 2,000,000 poods of liquid fuel for the needs of the ways of communication in the province.

**Petroleum Exploration in the Astrakhan Province.**—The granting of certificates for petroleum exploration within the limits of the Astrakhan province will in future be transferred to the mining engineer of the Ural district.

**A New Tanker.**—The Volga Company has completed the building of a new internal-combustion-engined petroleum tanker, 420 ft. in length and of a capacity of 200,000 poods. The tanker will be supplied with two Diesel motors of 140 h.p. each.

**Sale of Plots.**—On April 28th there were sold without auctions at St. Petersburg twenty-nine exploration plots, sixteen of which are in the Apsheron Peninsula and two on the Caucasus. On October 28th next there will be sold under the same conditions eleven plots in the Ukhta district.

**Union of Small Shipowners.**—A siezd of the small Volga shipowners has taken place at Novgorod at which twenty-two firms were represented, who own forty tugs with a considerable number of barges. It was decided to form a company, which will tend to amalgamate all the small Volga shipowners, and thus they will be able to compete with the large firms.

**Demand of the Hand-Dug Producers.**—The Baku hand-dug producers have addressed the administration of the Caucasus with a demand to annul the regulation of February 20th, 1913, restricting the production from hand-dug wells, as being ruinous for the producers. Last month a delegation of the hand-dug producers personally interviewed at St. Petersburg the president of the Council of Ministers in order to induce the council to annul the negotiations.

**Amalgamation of Volga Shipowners into a Petroleum Company.**—The Volga shipowners have decided to organise a petroleum company in order to supply the shareholders with their own fuel. The share capital of the new company will be 3,000,000 roubles, and the enterprise will be financed by several banks. It is intended to acquire a plot of petroliferous land on the northern shore of the Caspian Sea in the Ural province between the mouths of the Rivers Ural and Emba.

**Railway for the Emba District.**—The Emba Company intends to construct a railway line near Rakushi, part of which will pass along the shore of the Caspian Sea and will reach Iskine, which is twenty versts from Rakushi, and from there it will be continued to Dos-Sor, which is twenty-three versts from Iskine. The line will be laid parallel to the pipeline and will be used for the transport of building materials and for the hands to reach the fields of the Emba Company.

**Kerosene Exports.**—In connection with the introduction into Turkey of a petroleum monopoly, the Turkish Government has granted the Russian exporters one-third of the total quantity of kerosene imported into Turkey. The other two-thirds have been granted to Roumania and America. A group of Baku petroleum producers and Batoum exporters have addressed the Ministry of Trade with a demand to continue the former privilege as regards the export of kerosene, without which the trade will be ruined.

◆

## ROUMANIAN.

**Exportation.**—Exportation is quite satisfactory. The prices for the export of benzine are weak, but those of kerosene quite satisfactory.

**Steaua-Romana.**—The production of this company for the past week averaged 1,015 tons a day. Wells No. 233 Chiciura and No. 9 Zemesh were in eruption.

**A New Society.**—A new society under the name of "Exploatarea Petrolifera Runcu" has been formed with a capital of 105,000 francs. The offices of the new company will be at Campina.

**Production of Astra-Romana during April.**—The production of the Astra-Romana during April amounted to a total of 47,663 tons, of which 36,153 tons were obtained at Stavropoleos, 8,770 tons at Bana, 1,631 tons at Campina, and 761 tons at Filipeshti.

**The Astra-Romana.**—The production of this company during the past week averaged 1,318 tons a day, of which 981 tons were obtained at Stavropoleos, 254 at Moreni, 48 at Campina, 24 at Filipeshti, and the remainder at Baicoi, Glodeni and Runcu.

**Prices.**—Prices of crude oil, although not reduced, are not as firm as they were last week. Although the actual free production for disposal does not justify the enormous offers, nevertheless such are made for speculative purposes, and are slightly influencing the prices.

**The Romana-Americana.**—The production of this company during the past week averaged 1,010 tons a day, of which 975 tons were obtained at Moreni, 15 at Bushtenari, 15 at Baicoi, and 5 at Tetzcani. Well 8P. continues to yield by eruption from 300 to 350 tons a day.

**Prices of Products.**—Prices of products on the interior market have not changed. The results of the negotiations between the Ministry of Trade and Industry and the refiners for the establishment of a price for residuals necessary for the State services are awaited with great impatience.

**The Victoria Company.**—This company has now displayed great activity on its fields at Bustenari, Gropi and Baicoi. At Bustenari wells Nos. 3 and 4 are at depths of 260 and 200 metres respectively, and will reach the petroleum stratum at about 300 metres. Three new wells, Nos. 5, 6 and 7, are being bored. At Baicoi well No. 1 is at a depth of 210 metres, where traces of petroleum have appeared.

**Activity of the Astra-Romana.**—Well No. 16S. at Moreni of this company has continued its eruptions with a yield of about 200 tons a day. Well No. 37 is in extraction, but its production is influenced by abundant sand, which has to be continually cleaned off. Early results are expected from wells No. 17S. at Stavropoleos and 39A.R., which latter is a new well on the west frontier of the State lands.

**The "Vega" and "Credit Petrolifer."**—At a meeting of the administration of these two companies held in Berlin on April 22nd, it was decided to distribute a dividend of 20 per cent. to the shareholders of the Vega and 15 per cent. to those of the Credit Petrolifer. The capitals of the companies are 3,750,000 francs for the Vega and 5,000,000 francs for the Credit Petrolifer, so that together 1,500,000 francs will be distributed as dividend.

**General Production.**—The general production is now at its normal level of 5,000 tons a day, being somewhat lower than that during the last few weeks, as the eruptive wells at Moreni and Bana have ceased their eruptions and entered into regular extraction. New wells of an eruptive nature are expected to strike oil at Moreni; the activity also on the other fields and in the district of Chiciura-Gropi is very great and new results are expected which will considerably increase the production.

## PATENTS.

*Specially contributed by Messrs. EDWARD EVANS & CO., Consulting Engineers, Chartered Patent Agents and Enrolled Patent Attorneys of the United States, of 27, Chancery Lane, London, W.C.*

*Messrs. EDWARD EVANS & CO. would be pleased to forward a copy of any of the Specifications on request, and on remittance of a P.O. for 1s. to cover cost and postage. They would also be pleased to advise upon the novelty, subject-matter, and value of any invention submitted to them by our subscribers.*

### Applications Published.

**Making lighter hydrocarbons from heavier ones.**—Planes, Ltd., of 54, Duke Street, Birkenhead, and William Phillips Thompson, of 6, Lord Street, Liverpool. No. 5245 of 1913. This relates to the process of cracking petroleum and other heavy hydrocarbons, which consists in heating a mixture of the liquid petroleums, finely divided nickel, and hydrogen with violent agitation in a cracking still.

**Means applicable for use in storing liquid hydrocarbons and carburetting air.**—The B. R. S. Syndicate, Ltd., of Coventry House, South Place, Finsbury, London (Hippolyte Romanoff, of Italianskoya 15, log 29, St. Petersburg, Russia). No. 9854 of 1913. This relates to means for use in the storage of hydrocarbons and in carburetting air, and consists in the provision of absorbent blocks or bodies prepared by pressing wood shavings in highly-heated moulds.

**Apparatus for distilling oils and the petroleum, tar and similar types.**—Leo Steinschneider, of No. 3, Franzensglacis, Brünn, Austria. No. 8758 of 1913. This relates to an apparatus for distilling oils of petroleum, tar and the like under vacuum, wherein the distillate gases that are not condensed in the cooling devices are conveyed before or after entering the barometric condenser or air pump, through a sealing liquid adapted to be adjusted with reference to the level.

**A liquid-fuel burner.**—Aktiengesellschaft für Sclasrelcuchtung, of 23, Gerichtstrasse, Berlin. No. 12808 of 1913. This relates to a liquid-fuel burner provided with a device which permits of regulating the angle between the longitudinal axis of the burner and the stream-line of the pressure medium traversing the same, without resorting to helical guide passages for the pressure medium.

### Applications Filed.

**Distilling apparatus for paraffin oils.**—Ernest Brown. No. 9496 of 1914.

**Oil filters.**—Nehemiah Guthridge Bithrie. No. 9643 of 1914.

**Extinguishing flames in tanks for inflammable liquids.**—Hans Berndt. No. 10098 of 1914.

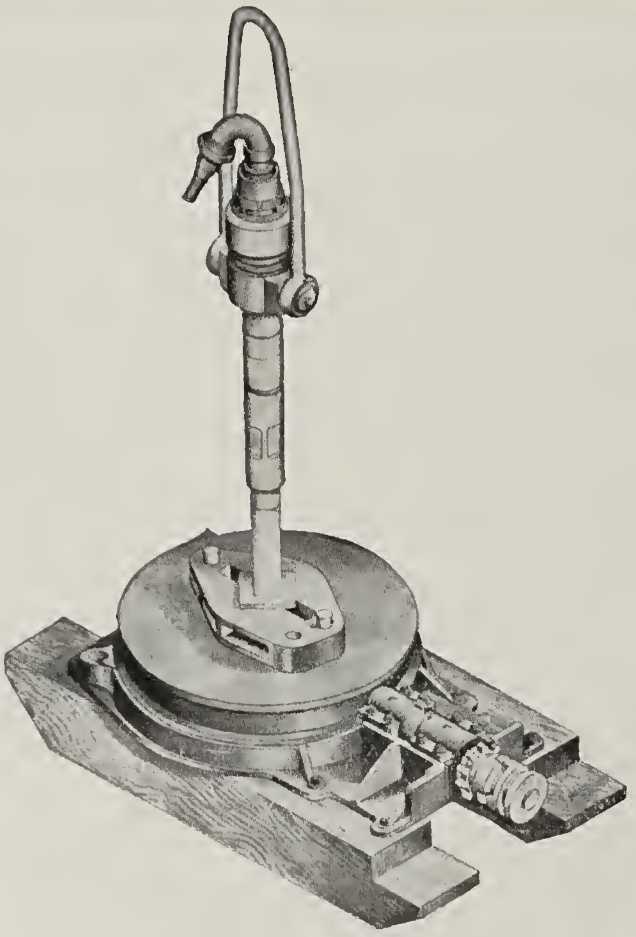
**Methods of treating oil.**—Frederick Gilbert Brettell. No. 10105 of 1914.

◆

## OUTPUT OF THE BAKU REFINERIES DURING FEBRUARY.

The output of petroleum products from the Baku refineries during February was as under :—

| | Distillate. Poods. | Refined Products. Poods. |
|---|---|---|
| Kerosene | 6,963,289 | 6,299,093 |
| Solar oil (light) | 231,377 | 1,369 |
| ,, ,, (heavy) | 288,546 | — |
| Lubricating oils | 2,056,750 | 1,646,127 |
| Residuals | 11,396.878 | — |
| Benzine | 1,223,676 | 111,222 |
| Lubricating residuals | 3,803,612 | — |
| Goudron | 64,984 | — |
| Paraffin | 2,492 | — |
| Total | 25,931,594 | 8,057,811 |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GENERAL.
57, BISHOPSGATE ST.,
LONDON, E.C.
*Telephone*—2784 WALL.
*Telegrams*—"OLIFIERS, LONDON."

# MISCELLANEA.

## THE ROTARY MACHINE IN CALIFORNIA.

Our contemporary, the *Oil Paint and Drug Reporter*, in its current issue points out that during recent years the rotary drilling machine has made considerable progress in the Californian fields, and the rotary method of drilling is now a permanent Californian institution. Of the total number of wells being drilled at the present time in the Californian fields, probably 125 are being drilled by the rotary, which to-day is capable of handling almost any formation. There are, however, several fields in California in which the rotary has yet to make its debut.

◆

## THE OILFIELDS OF MEXICO.

### Protection Assured.

On Tuesday, in the House of Commons, Sir J. D. Rees asked the Foreign Secretary whether the oilfields of Mexico had been or were being neutralised in order to ensure their protection during the present state of war.

Sir Edward Grey said that as a result of efforts made for the protection of the oilfields assurances had been received from the Federal Governor at Tampico and from General Carranza that employees might return to look after the wells in the neighbourhood of Tampico, while General Huerta had promised to issue orders for the return of employees of all nationalities to resume work and to do his best to prevent fighting in the oil district, or the district being used as a base of operations.

◆

## A NEW PIPELINE COMPANY FOR CALIFORNIA.

A new company, to be known as the Valley Pipeline Company, is now in course of formation in California. It is to have a total capital of $10,000,000, and is formed with the intention of building a pipeline from the valley oilfields to San Francisco Bay. The incorporators include Mr. W. Meischke, Mr. Jno. Lawson, Mr. J. C. Vaneck, and Mr. H. R. Callagher, the last two mentioned gentlemen being the Californian representatives of the Shell-Royal Dutch interests.

◆

## HEAVY OIL ENGINES FOR MARINE PURPOSES.

The development of the heavy oil engine bids fair to bring about a revival of the big square-rigged sailing ship, says the *Scientific American*. The latest of this type is a magnificent vessel, "The France," launched by the Chantiers de la Gironde, at Bordeaux. She is 430 ft. long, 55⅝ ft. beam, and draws 24 ft. when loaded to a displacement of 10,650 tons. Her auxiliaries consist of twin Schneider-Carels oil engines of 925 horse-power, which drive the ship at a speed of 10½ knots, the fuel consumption on the brake test being 0·45 lbs. per brake horse-power per hour. Her lines are finer than those of the ordinary tramp steamer, and under sail alone she should be capable in a whole-sail breeze of making 16 knots.

## RUSSIAN EXPORTS DURING THE FIRST QUARTER.

The exports of petroleum products during the first quarter of the year have amounted to 10,400,000 poods, including 7,100,000 poods of kerosene, 2,700,000 poods of lubricating oils, and 500,000 poods of residuals. Thus, out of the exports, those of lubricating oils show a decline, but such will be covered during the next months, as the situation on the market for this product is firm; at the same time there must be a fall in the exports of kerosene in view of the winter season being now over.

◆

## THE OAKBANK OIL COMPANY, LTD.

### A Fifteen per cent. Dividend.

The report of the Oakbank Oil Company, Ltd., for the year ended March 31st, 1914, states that the amount at the credit of profit and loss account, including £6,524 brought forward, is £79,606, from which falls to be deducted interest on loans, £1,593, and interim dividend on preference shares, paid November 21st, 1913, £3,000, leaving £75,013, which the directors recommend should be disposed of as follows:—(1) In payment of the balance of dividend on the Six per Cent. Preference Shares, £3,000; (2) in payment of a dividend at the rate of 15 per cent. per annum on the ordinary shares, free of income-tax, £25,000; (3) in writing off depreciation on plant, leases, etc., £12,000; (4) in writing off amount expended on improved plant, £5,641; (5) in writing off cost of burning oil bulk distribution plant, £10,533; (6) to retort renewal fund, £5,000; (7) balance to be carried forward, £13,338. The value of products has ruled high during the year, but is now at a much lower level. All costs have also been high, and are unlikely to fall in the same ratio as prices have fallen. The supply of shale has not been quite equal to the capacity of the works, but the development work necessary to meet the deficiency is being carried out as rapidly as possible.

◆

## AMERICAN EXPORTS OF PARAFFIN WAX.

The exports of paraffin wax from America during February, and a comparison with the quantities exported for the corresponding month of last year, are given in the following table:—

| | 1914. Pounds. | 1913. Pounds. |
|---|---|---|
| Germany ... ... | 448,771 | 737,975 |
| Italy... ... ... | 1,533,170 | 2,242,362 |
| Spain ... ... | 480,545 | 566,169 |
| United Kingdom ... | 5,774,910 | 15,364,519 |
| Other Europe ... | 1,020,282 | 1,448,997 |
| Mexico ... ... | 857,424 | 2,515,500 |
| Japan ... ... | 118,705 | 1,130,766 |
| Africa ... ... | 6,578 | 51,348 |
| Other Countries ... | 1,393,528 | 4,209,083 |
| Totals ... ... | 11,633,913 | 28,266,719 |
| Values ... ... | $121,357 | $917,285 |

# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Lobitos Oilfields, Ltd.** — Production for April, 6,727 tons.

**Tulsa Oil Company, Ltd.** — April output, 7,821 barrels (1,078 tons), value $6,256.

**Traian Roumanian Petroleum Company, Ltd.**—Production, week to May 2nd, 460 tons.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production, week to May 2nd, 284 tons.

**British Colonial Petroleum Company, Ltd.** — Production of Tzintea well for thirty working days to April 30th, 577 tons.

**Anglo-Egyptian Oilfields, Ltd.**—Telegram from Gemsah gives production of oil for week as 3,352 tons, of which 157 tons are from Hurgada, well No. 3.

**Kansas-Oklahoma Oil and Refinery Company, Ltd.**—The company report that a further well has come in on their southern property, and is running at 60 barrels per day.

**Premier Oil and Pipeline Company, Ltd.**—Production, April, 14,150 tons. Office note :—"There were three less working days than in March on account of the Easter holidays."

**Sphinx Petroleum Company, Ltd.**—The company's manager has advised that the April production of oil from Tzintea well No. 1 amounted to 509 tons. The Gropi well, now drilling, is proceeding satisfactorily, being now in gas and approaching the oil sands.

**Kern River Oilfields, Ltd.**—Total production, April, 146,400 barrels (approximately 20,914 tons), including 76,570 barrels from properties of St. Helens Petroleum Company. Office note : "The telegram advising production refers to the month of March. This is clearly a clerical error, and the message is being repeated."

**Santa Maria Oilfields of California, Ltd.**—Cable from Los Angeles :—"Putting Shaw No. 1 on pump to separate oil and gas. Pressure holding oil back. Timber for Shaw No. 2 well will be in on May 6th. Cementing off 12-in. casing on Laguna No. 1 at 1,250 ft. this week. Production same as last month (42,000 barrels)."

**Tampico-Panuco and Chijoles.** — Cable from general manager from Panuco states that the Chijoles property is being partly worked. Operations on Tamboyoche and Punta de Arena properties temporarily suspended. Railway construction proceeding without interruption. A cable from a private source from Mexico, dated May 4th, confirms that all is well.

**Roumanian Consolidated Oilfields, Ltd.**—Production for the week ended May 2nd, 808 tons. Cable from Ploesti, May 4th :—"Moreni : Well No. 30 (depth 2,506 ft.), have extracted one length of drill stem, now engaged in extracting remainder ; well flowed for six minutes when disturbed, producing 10 tons. Well No. 24 struck oil sand at depth of 1,214 ft. ; now cleaning. Well No. 39, total depth, 1,148 ft. ; indications good. Chiciura : Well No. 1, total depth 2,103 ft. ; well No. 6 deepened 137 ft. during week."

**Venezuelan Oil Concessions, Ltd.**—Advices have been received from the fields to the effect that "well No. 1 reached a depth of 1,035 ft. on April 11th, after having passed through 71 ft. of oil sands yielding oil of 0·915 specific gravity ; drilling is progressing." Office note : "This news is considered by Mr. R. Stirling (joint managing director) to be very satisfactory, and without waiting to deal with the first oil strata drilling is progressing with the object of encountering the main sands, which the technical managers of the company are confident exist at a lower depth."

**Maikop Premier Oil Syndicate, Ltd.**—Telegram received May 4th :—"Premier well No. 5 (and) well No. 7 burnt down completely Sunday morning ; caused by spark from baler in well No. 5. Well No. 5 : Hope to commence baling Tuesday evening (and from) well No. 7 Wednesday or Thursday." Office note : "New well No. 7 has evidently been brought in during the week. The fact that it is expected to restart operations on these two wells at such an early date proves that the damage is confined to the superstructure, which is covered by insurance." Cable received May 5th from Maikop :—"Plot 488 : Estimated damage caused by fire not exceeding 6,500 roubles (equal to about £690)."

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**Publicity.**—All enterprising firms advertise in the Review. Shall we quote you Rates? Send a postcard to—Advertisement Manager, Review Offices, 45, St. Mary Axe, London, E.C.

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Besides accommodation for LUBRICATING and ILLUMINATING OILS, there are exceptional facilities for the landing, storing and delivering, in bulk, barrels, cases, etc., of MOTOR SPIRIT, FUEL BENZOLINE, and similar OILS. Also excellent means of transit by water in bulk, barrels, etc., and Railway communication with all the leading Railways throughout the United Kingdom.

For further particulars and terms, apply—

THE VICTORIA PETROLEUM COMPANY, Ltd.
ELY HARBOUR, CARDIFF.

## IMPORTS OF PETROLEUM PRODUCTS INTO GERMANY DURING 1913.

The official rectified figures as regards the imports of petroleum into Germany during 1913 are now at hand, according to which the total imports of petroleum products amounted to 1,472,727 tons, as against 1,554,572 tons imported in 1912, thus showing a decrease of 81,845 tons. The following table shows the imports of the various products, viz. :—

| | 1913. Tons. | | 1912. Tons. |
|---|---|---|---|
| Crude oil ... ... | 971 | ... | 2,406 |
| Kerosene ... ... | 745,466 | ... | 795,011 |
| Benzine, crude ... | 159,380 | ... | 198,145 |
| Benzine, heavy ... | 81,366 | ... | 68,272 |
| Lubricating oils ... | 248,035 | ... | 241,030 |
| Mineral oils ... | 8,361 | ... | 11,083 |
| Residuals... ... | 11,115 | ... | 10,893 |

As can be seen from the above table there was a considerable decrease in the imports of kerosene amounting to about 50,000 tons. This decrease is due to the reduction in the illumination by kerosene, in favour of gas and electricity, and is very interesting in view of the introduction of the State monopoly for kerosene, which has undoubtedly influenced the kerosene trade. On the other hand, it may also be partly due to the decrease in the production in Galicia, which is a large supplier of kerosene for Germany.

There is also notable a considerable decrease of nearly 40,000 tons of crude benzine, partly recuperated by an increase of 13,000 tons of heavy benzine.

The following table shows the origin of the main products imported :—

Kerosene.

| | 1913. Tons. | | 1912. Tons. |
|---|---|---|---|
| U.S. of America... | 574,749 | ... | 617,138 |
| Austria ... ... | 119,680 | ... | 125,967 |
| Roumania ... | 33,336 | .. | 22,463 |
| Russia ... ... | 17,493 | ... | 29,257 |
| Dutch Indies ... | — | ... | — |
| Total ... ... | 745,466 | ... | 795,011 |

Crude Oil.

| | 1913. Tons. | | 1912. Tons. |
|---|---|---|---|
| U.S. of America... | 41,816 | ... | 73,874 |
| Austria ... ... | 7,503 | ... | 9,524 |
| Roumania ... | 50,160 | ... | 55,246 |
| Russia ... ... | 42,896 | ... | 42,998 |
| Dutch Indies ... | 16,796 | ... | 15,109 |
| Total ... ... | 159,380 | ... | 198,145 |

Lubricating Oils.

| | 1913. Tons. | | 1912. Tons. |
|---|---|---|---|
| U.S. of America... | 102,467 | ... | 102,465 |
| Austria ... ... | 38,653 | ... | 34,246 |
| Roumania ... | 13,379 | ... | 12,057 |
| Russia ... ... | 90,573 | ... | 89,124 |
| Dutch Indies ... | — | ... | — |
| Total ... ... | 248,035 | ... | 241,030 |

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## ROUMANIAN PETROLEUM PRODUCTION DURING MARCH.

The production of crude oil on the Roumanian oilfields during March amounted to 160,000 tons, as against 132,000 tons obtained in February, thus showing an increase of 28,000 tons. The production of the principal firms was as follows :—

| | Tons. |
|---|---|
| Astra-Romana ... .. ... ... | 50,778 |
| Romana-Americana ... ... ... | 38,153 |
| Steana-Romana ... ... ... | 30,013 |
| Colombia ... ... ... ... | 1,988 |
| Concordia ... . ... ... | 7,595 |
| Orion ... ... ... ... ... | 5,705 |
| Roumanian Consolidated Oilfields, Ltd. ... ... ... ... ... | 4,844 |
| Internationale ... ... ... ... | 4,018 |
| Traian Roumanian Oil Company ... | 2,056 |
| Aquila Franco-Romana ... ... | 1,358 |
| Alpha ... ... ... ... ... | 1,565 |
| Nafta ... ... ... ... ... | 3,297 |

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LONDON, E.C.
*Cable Address :*
Western Union, "Finpavlo, London."

# NEW ENGLISH COMPANIES.

### WEST PRINCE (1914), LTD.

REGISTERED on April 24th, by A. Veasey & Co., Queen's House, 8, Queen Street, Cheapside, E.C. Capital £50,000 in £1 shares. Objects: To acquire property and rights of all kinds, and in particular oilfields, oil and oil products, and to carry on all kinds of exploration business, etc. Signatories: E. J. Llewellyn, 8, Queen Street, E.C.; and L. O. C. Hathaway, "Stowe," 141, Broomwood Road, Clapham Common, S.W. First directors, R. F. W. Hodge, Coxlodge Hall, Newcastle-on-Tyne; T. Davidson, Teams Glass Works, Gateshead-on-Tyne; C. T. Watkins, 3, Great Winchester Street, E.C.; and A. C. T. Veasey, 8, Queen Street, Cheapside, E.C. Secretary and registered office, R. P. Veasey, 32, Broad Street House, New Broad Street, E.C. Private company.

### THE ORTOIRE SYNDICATE, LTD.

Registered on April 25th, by Aylward & Cobbett, 16, Clifford's Inn, E.C. Capital, £40,000 in £1 shares. Objects: To acquire any lands, and also any licences, options, and rights over oilfields and lands, etc., in the Island of Trindad, in the British West Indies, and to turn to account the same; also to carry on the business of producers, refiners, manufacturers, importers, and exporters of and dealers in mineral and natural oils, and minerals of all kinds, etc. Signatories: R. G. Longcroft, 79, Bishopsgate, E.C.; and C. B. Smith, 61, Onslow Gardens, Highgate, N. First directors (who are to number not less than two nor more than seven) are E. Moreau; C. W. Woodall; and E. Escombe. Qualification, £500. Registered office, 79, Bishopsgate, E.C. Private company.

### NEW GROSNY OILFIELDS, LTD.

Registered on April 27th, by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital, £100 in £1 shares. Objects: To acquire any petroleum, or oil-bearing lands, and to sink wells, make borings, search for, develop and to turn to account the same; and to carry on the business of dealers in and refiners of petroleum, and other mineral oils, and the products thereof, etc. Signatories: D. O. Robertson and G. L. Corder, both of 91, Warwick Street, Victoria, S.W.; A. P. Howlett, 288, High Road, Wood Green, N.; F. Bennett, 22, Mount Pleasant Road, Tottenham, N.; G. R. Fowler, 38, Bushy Hill Road, Camberwell, S.E.; S. C. Eady, 56, Morley Road, West Ham, E.; and R. H. Wheeler, 17, Gracechurch Street, E.C. First directors not yet appointed. Registered office, 17, Gracechurch Street, E.C.

### FANIEFF OIL SYNDICATE, LTD.

Registered on April 27th, by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital, £25,000 in £1 shares. Objects: To acquire petroleum and oil-bearing lands in any part of the world, and to sink wells, make borings, and otherwise search for, obtain and to turn to account the same; and to carry on the business of dealers in and refiners of petroleum and other mineral oils, naphthaline, and other similar substances, etc. Signatories: D. O. Robertson, 91, Warwick Street, Victoria, S.W.; and R. H. Wheeler, 17, Gracechurch Street, E.C. First directors to be appointed by the signatories. Qualification (other than first directors), 100 shares. Registered office, 17, Gracechurch Street, E.C. Private company.

### ALBERTA OIL PRODUCTION COMPANY, LTD.

Registered on April 28th, by G. Kirkdale, 85, Fleet Street, E.C. Capital £1,000 (800 ordinary shares of £1 each and 4,000 deferred shares of 1s. each). Objects: To acquire and turn to account properties and rights of all kinds, and in particular oilfields, natural gas, oils, oil products and mines; to sink wells, pipes, and erect any apparatus necessary to obtain, store, or distribute oil, gas, and the products of oil; to act as distillers of shale and other carbonaceous substances; and to carry on the business of refiners of and dealers in oils, spirit, and other products of such distillation, etc. Signatories: G. Kirkdale, 84, Rochester Row, S.W., and G. Hibbert, 12, Trinity Square, Southwark, S.E. First director (who are to number not less than one nor more than seven) is R. E. Crane, Sacombe Bury, Ware, Herts. Secretary and registered office, G. Kirkdale, 85, Fleet Street, E.C. Private company.

### BRITISH CAUCASIAN OIL SYNDICATE, LTD.

REGISTERED on April 30th, by Mayo, Elder & Co., 10, Drapers' Gardens, E.C. Capital, £100 in 10s. shares. Objects: To acquire oil-bearing lands in Russia and elsewhere, and to prospect for, work, and develop petroleum and oil-bearing lands, oil and other rights, etc., and to carry on the business of oil and petroleum refiners, etc. Minimum cash subscription, 100 shares. Signatories: E. L. Cozens, 2, Forest Villas, Walpole Road, South Woodford, Essex; C. F. Riley, 852, Romford Road, Manor Park, E.; T. Midgley, 12, Banyard Road, S.E.; B. J. Weaver, 146, Halle Road, Forest Gate, E.; F. Evans, Ockendon House, Brookhill Road, New Barnet; F. A. Saxon, 58, Percy Road, North Finchley, N.; and L. Banks, 75, Ronalds Road, Highbury, N. First directors (who are to number not less than two nor more than five) are to be appointed by the signatories. Qualification (other than the directors appointed before statutory meeting), £100. Remuneration (other than managing director), £100 each per annum (chairman, £150) and 5 per cent. of the net profits after a dividend of at least 10 per cent. has been paid.

### ACMOR, LTD.

Registered on April 30th, by Devonshire, Monkland & Co., 1, Frederick Place, Old Jewry, E.C. Capital, £5,000 in £1 shares. Objects: To acquire oil-bearing lands or any interest therein; to sink wells, make borings, and to otherwise search for mineral oils and the products thereof; and to carry on the business of dealers in and refiners of mineral oils and the products thereof, and to treat and turn to account same; also to enter into an agreement with D. C. Acosta and F. H, Morris. Signatories: H. C. Wright, 179, George Lane, Lewisham, S.E., and A. A. Bretherton, Ingram House, Stockwell Road, S.W. Minimum cash subscription, £100. First directors (who are to number not less than two nor more than five) are to be appointed by the signatories. Qualification, £100. Secretary and registered office, A. W. Lipsham, 1, Frederick Place, Old Jewry, E.C.

## THE PETROLEUM DEPOSITS IN ASIATIC TURKEY.

IN view of the recent formation of an Anglo-German company for the exploitation of the petroliferous deposits in the districts of Mossoul and Bagdad, it is interesting to give some details regarding the localities in which these deposits are situated. The districts of Mossoul and Bagdad are traversed by the Tiger and border the Persian Empire. The Bagdad Railway, which is now in construction along the right shore of the Tiger, touches the town of Mossoul and terminates at Bagdad. The two districts cover an area of 130,000 square kilometres, that is to say, equal in area to about a quarter of the German Empire.

The oilfields of Hit have already been mentioned by great writers, and the oilfields of Babylon were mentioned by English travellers at the beginning of the seventeenth century. In the seventies of the last century the fields of Mendeli attracted great interest, but the reports of experts sent over pointed to great difficulties of transport, while later on there were also added political difficulties and troubles, in which the Turkish Empire was then involved.

All the petroliferous fields, with the exception of those at Tuz Khurmatli, belong to the administration of the Civil List of the Sultans, and until recently, owing to the deficiency of ways of communication and the imperfect state of exploitation, these fields were bringing in but a poor revenue of about 25,000 francs a year. Now, however, the question of transport is no longer a difficulty, owing to the construction of the railways in Asia Minor, and it appears that the possibility of the exploitation of the petroleum deposits is no longer in doubt.

In 1904 the administration of the Anatolian railways concluded an agreement with the administration of the Civil List, according to which an option was granted for a forty years' lease, but this option has not been realised, and at present the new Anglo-German company is taking over this exploitation.

At the commencement, the fields extending along the Tiger will be exploited and the oil will be brought from there to the Persian Gulf by means of a service of barges of a capacity of 300 to 400 tons, which will be reloaded at Basra into tank steamers. A service of pipelines is also projected from Mendeli to Basra.

## LATEST COMPANY REGISTRATIONS.

### CASPER OIL AND EXPLORATION COMPANY, LTD.

REGISTERED on April 30th, by Jordan & Sons, 116 & 117, Chancery Lane, W.C. Capital £10,000 in £1 shares. Objects: To acquire lands in America and elsewhere which may seem capable of affording a supply of gas or mineral oil, and to carry on the business of extracting, drilling, pumping, drawing, transporting, purifying, and dealing in petroleum and other mineral oils and gas, and to establish, utilise, and turn to account pumping stations, lines, and other works suitable for the purpose; also to enter into an agreement with S. Lane. Signatories: Mrs. E. A. Northen, 61, The Drive, Hove, Sussex; and R. N. Willett, Paynesfield, Hassocks, Sussex. First directors: E. A. Northen, R. N. Willett, and S. Lane. Private company.

### BRITISH INTERNATIONAL OIL SYNDICATE, LTD.

Registered on April 30th, by Steadman, Van Praagh & Gaylor, 4, Suffolk Street, Pall Mall East, S.W. Capital £26,250 (25,000 ordinary shares of £1 each and 25,000 founders' shares of 1s. each). Objects: To acquire mining claims, rights, licenses over oilfields, wells, shale fields, and lands, etc., containing oil; to bore, drill or sink wells for petroleum and other oils, shale or oil deposits, and to buy, erect, work and maintain retorting and refining works for the production, precipitation, distillation and preparation of crude and refined oils, and the products and by-products of the same, and from the chemicals used in purifying: and to carry on the business of owners, lessors, or lessees and managers of oilfields, oil wells, and mines, producers, manufacturers, importers, exporters, distillers, refiners and merchants of and dealers in oils, greases and other products and by-products of oils, etc. Signatories: A. Hambly, 4, Suffolk Street, Pall Mall East, S.W., and A. Hackworth, 19, Ferncroft Avenue, Hampstead, N.W. First directors to be appointed by the signatories. Qualification (other than first directors), 100 shares. Remuneration, £100 per annum each (chairman, £125). Registered office, 4, Suffolk Street, Pall Mall East, S.W. Private company.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

May 8th, 1914.

The prices of Refined Petroleum have again fallen ¼d. per gallon; the official prices are :—Russian, 7¼d.; American, 7½d.; American Water White, 8½d.; Roumanian, 7d.; Galician, 7d.

### LUBRICATING OILS.

There are no further alterations in the prices since the last fall, quotations remaining as follows :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL

is quoted 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL.

The market price is 70s. per ton, in bulk, ex wharf.

### MOTOR SPIRIT.

The best quality is quoted retail in London 1s. 9d. per gallon and the second quality 1s. 7d. per gallon.

### TURPENTINE.

Considerable business has been done in American Turpentine during the week, it is now quoted for spot 32s.: June/August, 32s. 6d.; September/December, 33s.

## LIVERPOOL.

May 7th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

Bombay, April 5th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., „ ... | 5 | 12 | 2 | „ |
| Chester Brand, 75 deg., Abel „ ... | 5 | 2 | 2 | „ |
| Devoe's Imp. Brilliant. 76 deg., Abel ... | 5 | 0 | 2 | „ |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | „ |
| Tiger Brand in tins, 125 deg., American ... | 4 | 14 | 2 | „ |
| White Camelia Brand in tins, 125 deg. ... | 4 | 5 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 5 | 0 | „ |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 11 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 5 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 13 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 7 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 11 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 0 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 8 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| „ Firefly, per case of two tins ... ... ... | 4 | 15 | 0 |
| „ Chukker, per two tins ... ... ... ... | 4 | 5 | 0 |
| „ „ per 8 gallons ... ... ... ... | 3 | 11 | 0 |
| „ Victoria, per two tins ... .. ... ... | 3 | 11 | 6 |
| „ „ per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| „ „ „ 2nd quality ... ... ... | 0 | 3 | 0 |
| „ Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

New York, May 7th.

Following another 10c. cut in Crude prices, th market is lower. Refined, in cases, is quoted at 11·10 Standard White, 8·60; Credit balances, 2·40.

Philadelphia, May 7th.

Standard White is quoted at 8·60.

## GERMANY.

Hamburg, May 6th.

The petroleum prices remain unchanged. Th offer for benzine begins to be lively. America and Galician, 8·85; Russian and Roumanian, 8·85 Motor spirit, first quality, M. 46·75 for 0·690–0·710 an M. 39·75 for 0·710–0·730; second quality (0·750–0·77 gravity), 32·00–33·00.

## RUSSIA.

Baku, May 5th.

The tendency of benzine is lower, that of gas oil an lubricating oils steady. Crude oil is quoted at 37½–37 copecs per pood spot. Kerosene, 47 copecs. Residuals, 36–36½ copecs.

## ROUMANIA.

May 5th.

The export of petroleum is for the moment ver restricted. The latest prices are :—

| | Francs. |
|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. Bushtenari | 8·30–8·40 |
| „ „ „ Moreni ... | 7·50–8·00 |
| „ „ „ Tzintea ... | 6·00–7·00 |
| „ „ „ Policiori... | 6·00 |
| „ „ „ Bordeni ... | 9·25–9·50 |
| „ „ „ Bana ... | 10·50 |
| „ „ „ Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... ... | 125 |
| Prices for Export. | |
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·5 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·0 |
| „ sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.0 |
| „ sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·0 |
| „ sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·5 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·5 |
| Gas Oil... ... ... ... ... ... | 7·50 |

## AUSTRIA.

May 5th.

Crude oil is quoted 6·70 kronen spot. Kerosene 29 kronen at Oderberg. Benzine, 700/710, 34 kronen a Oderberg. Motor spirit, 29–30. Gas oil, 6·80 kronen a Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date May 7th, as follows :—

The market continues quiet, but makers' prices ar practically unchanged at last week's rates as under The drooping price of tin largely accounts for th depression in the tin plate market.

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. ... | 13/1½ to 13/3 | per box |
| 1c | 20 ×10 | 225 „ | 156 „ ... | 18/3 „ 18/6 | „ |

F.o.b. Swansea. Tin lining and iron hooping extra

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# The American Oil Market.

---

### Saturday, April 25th, 1914.

Developments in the crude market, says the *Oil Paint and Drug Reporter*, have crowded thick and fast n the bearish movement inaugurated a couple of veeks ago, and almost the entire schedule of uotations, with the exception of the California oils, ias been subjected to downward revision. The ollowing table is the record of the week's changes :—

| | Last week. | Current week. | Date of change. |
|---|---|---|---|
| Pennsylvania ... ... | $2.40 | $2.20 | April 20 & 22 |
| Cabell ... ... ... | 1.97 | 1.77 | ,, 20 & 22 |
| Mercer black ... ... | 1.90 | 1.70 | ,, 20 & 22 |
| New Castle... ... ... | 1.90 | 1.70 | ,, 20 & 22 |
| Corning, Ohio ... ... | 1.75 | 1.35 | ,, 20 & 22 |
| Wooster, Ohio ... ... | 1.91 | 1.81 | ,, 18 |
| North Lima, Ohio... ... | 1.49 | 1.44 | ,, 18 |
| South Lima, Ohio... ... | 1.44 | 1.39 | ,, 18 |
| Indiana ... ... ... | 1.44 | 1.39 | ,, 18 |
| Princeton, Ind. ... ... | 1.45 | 1.40 | ,, 18 |
| Somerset, Ky. ... ... | 1.35 | 1.25 | ,, 20 & 22 |
| Ragland, Ky. ... ... | .70 | .65 | ,, 22 |
| Illinois ... ... ... | 1.45 | 1.40 | ,, 18 |
| Healdton, Okla. ... .. | .60 | .50 | ,, 20 |
| Corsicana, Tex., light ... | .95 | .95 | ,, 20 |
| Corsicana, Tex., heavy ... | .60 | .50 | ,, 20 |
| Electra, Tex. ... ... | .95 | .85 | ,, 20 |
| Henrietta, Tex. ... ... | .95 | .85 | ,, 20 |
| Goose Creek, Tex.... ... | .65 | .55 | — |
| Saratoga, Tex. ... ... | .80 | .60 | — |
| Sour Lake, Tex. ... ... | .75 | .60 | — |
| Spindletop, Tex. ... ... | .85 | .65 | — |
| Batson, Tex. ... ... | .80 | .60 | — |
| Dayton, Tex. ... ... | .70 | .55 | — |
| Humble, Tex. ... ... | .75 | .55 | — |
| Vinton, La. ... ... | .75 | .60 | — |
| Jennings, La. .. ... | .75 | .60 | — |

The declines have ranged from 5 cents in the Kenucky and Lima grades to 40 cents in the Corning, hio, product. It is somewhat of an anomaly that the egular Mid-continent grade, which has been to a large xtent responsible for the general break in the market, ias been unaffected by the week's developments, lthough the Healdton, Oklahoma, oil was cut 10 cents. The decline in the Gulf Coast grades by 15 cents to 0 cents has been justified on the heavy gain in the utput as well as the sharp competition of the Mexican rude. The further recession in the high-grade Pennylvania oils can only be reconciled on the effect of ompetition of the better grades of Mid-continent oil, s the output of the Eastern field has not been appreiably enlarged. Market conditions for the various efined products are also believed to have contributed o the set-back in the crude situation.

Under the more favourable weather conditions operaions have been stimulated in practically all of the Kentucky fields. In the eastern districts drilling has een of a wider scope, with a view of expanding the roducing limits in the Wayne, Wolfe, Morgan and awrence pools. The bringing in of a gusher well in hio county early in the month has encouraged operaions in the western districts of the State. This well s credited with 200 barrels a day. The best compleion of the week in the established field was a 30-arrel well in the Denny pool of Wayne county.

Returns from the Lima fields of North-western Ohio nd Indiana for the week show a general gain in comletions, although the new production record noted a eavy loss, chiefly in the Indiana end. This disparagenent is largely due to the slump in the Sullivan pool. A large number of the week's wells in this district have come in dusters, while the average of the producing wells has fallen to slightly less than 20 barrels. The keenest interest at this time in the Illinois fields is in the deep sand territory of Lawrence county, following the bringing in of a well starting at 150 barrels an hour. Its first ten days' output was placed at 25,000 barrels, and a late report credited it with holding up at 100 barrels an hour. The town lot development at Robinson, in Crawford county, continues to attract lively attention.

The Mid-continent field is described as in a state of demoralisation on the crude market depression, which is expected to carry it to further low levels. Contributing to the pessimistic sentiment has been the announcement that the leading marketing concern had limited the transportation and purchasing branches to 75 per cent. of the Oklahoma and Kansas production for a time, owing to the extreme pressure on storage facilities. The Bartlesville development, at Cushing, is now furnishing 55,700 barrels a day.

## Refined Products.

The further decline in the high-grade Pennsylvania oils, as well as the weakening of nearly all of the crude products, during the week has not been reflected in any definite development in the local market for illuminating oil, although the tone of the general refined situation has without doubt been affected, and any announcement of a decline in values would be readily accepted as a reasonable sequence of the crude depression.

### CLOSING QUOTATIONS.

### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. April 25. | 1914. April 25. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.50 | $2.20 |
| North Lima ... ... ... ... | 1.37 | 1.44 |
| South Lima ... ... ... ... | 1.32 | 1.39 |
| Indiana ... ... ... ... ... | 1.32 | 1.39 |
| Illinois, above 30 degrees ... ... | 1.25 | 1.40 |
| Kansas and Oklahoma ... ... ... | 0.88 | 0.85 |
| Humble, Tex. ... ... ... ... | 0.85 | 0.65 |
| Saratoga ... ... ... ... ... | 0.85 | 0.60 |
| Sour Lake, Tex.... ... .. ... | 0.85 | 0.60 |
| Californian, Coalinga light ... ... | — | 0.85 |
| ,, Kern River heavy ... | — | 0.40 |
| Canadian Oil ... ... ... ... | 1.77 | 1.89 |

### Refined—For Export.

| In cents. | Week ended April 25. S.W. 110 test. | W.W. 150 test. |
|---|---|---|
| Bulk, New York ... per gal. | 5·25 | 6·25 |
| Barrels, New York, cargo ... ... | 8·75 | 9·75 |
| Barrels, Philadelphia ... ... ... | 8·75 | 9·75 |
| Cases, New York ... ... ... | 11·25 | 12·25 |
| Cases, Philadelphia ... ... ... | 11·25 | 12·25 |

### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 20 |
| Gasoline, 86 deg. ... ... ... ... ... | 28 |

### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 3,000 to 10,000 ... ... ... .. ... ... | $11.40 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.50 |

### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 2,011,534 | 101,893,204 | 38,757,529 |
| Refined ... ... | 16,649,630 | 261,966,675 | 271,985,427 |
| Naphtha ... | 3,522,840 | 44,388,435 | 34,238,180 |
| Gas oil ... ... | 1,314,000 | 16,103,335 | 15,111,945 |
| Fuel oil... ... | 1,871,610 | 20,494,955 | 38,605,690 |

WORTHINGTON & BOLER,
LIVERPOOL, LONDON & GLASGOW.
EE ADVERTISEMENT ON PAGE 527.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MAY 4TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| April. | London— | | | |
| 29 | Meade-King, Robinson & Co. | Lub. Gr. | 1,200 | Baltimore |
| 29 | J. Thompson | ,, | 5,690 | New York |
| 29 | Mordaunt Bros. | Lub. | 2.100 | ,, |
| 29 | Asiatic Petroleum Co. | Crude | 6,080 | Rotterdam |
| 29 | ,, ,, | Spirit | 5,000 | ,, |
| 29 | Anglo-Mexican Petroleum Products Co. | Fuel | 1,085,600 | P. Mexico |
| 30 | Bowring Petroleum Co. | Lamp | 630,000 | ,, |
| 30 | J. Thompson | Lub. | 790 | Riga |
| 30 | Hanseatic Maritime Agency | ,, | 380 | Bremen |
| 30 | Port Authority | ,, | 1,200 | Hamburg |
| 30 | Leach & Co. | ,, | 120 | Ghent |
| 30 | London Oil Storage Co. | ,, | 8,000 | Antwerp |
| 30 | American Export Co. | ,, | 290 | New York |
| 30 | Mercantile Lighterage Co. | ,, | 4,200 | ,, |
| 30 | Vacuum Oil Co. | ,, | 20,090 | ,, |
| 30 | J. W. Cook & Co. | ,, | 4,000 | N. News |
| May. | | | | |
| 1 | Lubricating & Fuel Oils Co. | ,, | 891,800 | Batoum |
| 1 | Schliemann's Oil. etc., Co. | Lub. Oil and Gr. | 4,630 | Hamburg |
| 1 | Mory & Co. | Lub. Gr. | 120 | Boulogne |
| 1 | Anglo-American Oil Co. | Lub. | 36,080 | New York |
| 1 | Union Lighterage Co. | ,, | 12,000 | ,, |
| 2 | Port Authority | ,, | 3,830 | ,, |
| 2 | G. & H. Green | Lub. Gr. | 3,520 | ,, |
| 2 | Anglo-American Oil Co. | Gas | 860,590 | ,, |
| 2 | ,, ,, | Fuel | 606,800 | ,, |
| 2 | ,, ,, | Lub. | 1.119,560 | ,, |
| 2 | ,, ,, | Lamp | 1,807.660 | ,, |
| 2 | Anglo-Mexican Petroleum Products Co. | Fuel | 236,000 | P. Mexico |
| 2 | E. G. Boize | Lub. Oil and Gr. | 1,900 | Hamburg |
| 2 | Port Authority | Lub. | 400 | ,, |
| 2 | ,, | ,, | 5,000 | ,, |
| 2 | ,, | ,, | 2,250 | Antwerp |
| 4 | E. G. Boize | Lub. Gr. | 160 | Hamburg |
| 4 | ,, | Lub. | 2,900 | ,, |
| 4 | Mordaunt Bros. | ,, | 4,200 | Stettin |
| April. | Liverpool— | | | |
| 28 | A. Hopps & Sons | M. Colza | 2,600 | Baltimore |
| 28 | ,, | Lub. | 26,000 | ,, |
| 28 | Meade-King, Robinson & Co. | Lub. Gr. | 4,000 | ,, |
| 28 | ,, ,, | Lub. | 10,920 | ,, |
| 28 | ,, ,, | Lub. Gr. | 1,600 | New York |
| 28 | ,, ,, | Lub. | 4,000 | Philadel. |
| 28 | Anglo-American Oil Co. | ,, | 1,200 | New York |
| 28 | Huxley & Co. | ,, | 1,080 | ,, |
| 28 | Pickford's | ,, | 190 | Hamburg |
| 28 | R. Davidson & Co. | Lub. Gr. | 90 | Antwerp |
| 29 | Vacuum Oil Co. | ,, | 4,000 | Boston |
| 29 | F. Guest | Lub. | 400 | Hamburg |
| 29 | Burnaby & Chantrell | ,, | 5,350 | Baltimore |
| 29 | W. Johnston & Co. | ,, | 2,600 | ,, |
| 29 | Bowring Petroleum Co. | M. Colza | 2,820 | ,, |
| 29 | Liverpool Storage Co. | Lub. | 600 | New York |
| 30 | Bowring Petroleum Co. | ,, | 7,150 | Philadel. |
| 30 | Meade-King, Robinson & Co. | ,, | 33,520 | ,, |
| 30 | ,, ,, | ,, | 2,600 | Baltimore |
| May. | | | | |
| 1 | F. Guest | ,, | 10,600 | ,, |
| 1 | A. Hopps & Sons | Lub. Resid. | 2,600 | Halifax |
| 1 | Worthington & Boler | Lub. | 5,400 | Philadel. |
| 1 | Bramwell, Fern & Co. | ,, | 1,940 | ,, |
| 1 | Stockdale & Doel | ,, | 9,540 | ,, |
| 1 | Anglo-American Oil Co. | ,, | 12,400 | ,, |
| 1 | ,, ,, | Lub. Gr. | 1,200 | ,, |
| 1 | Crew, Levick & Co. | ,, | 1,590 | ,, |
| 1 | ,, | Lub. | 128,030 | ,, |
| 2 | American Line | ,, | 4,600 | ,, |
| 2 | W. B. Dick & Co. | ,, | 8,800 | ,, |
| 4 | Fellows, Morton & Clayton | ,, | 2,380 | ,, |
| 4 | Worthington & Boler | ,, | 400 | ,, |
| 4 | W. Crawford | Lub. Gr. | 330 | New York |
| 4 | Vacuum Oil Co. | ,, | 400 | ,, |
| 4 | ,, | Lub. | 15,660 | ,, |
| 4 | Worthington & Boler | ,, | 1,200 | ,, |
| 4 | Pickford's | Lub. Oil and Paste | 370 | Hamburg |
| 4 | ,, | Lub. | 480 | Antwerp |
| | Boston— | | | |
| 30/4 | W. F. Beaumont | ,, | 120 | Hamburg |
| | Bristol— | | | |
| 29/4 | E. Stock & Sons | ,, | 240 | ,, |
| 1 | Colthurst & Harding | ,, | 960 | Antwerp |
| May. | Bristol— | | | |
| 2 | E. Stock & Sons | Lub. | 1,040 | Hamburg |
| 2 | J. & R. Bush | ,, | 30.400 | New Yor |
| 4 | First Anglo-Russian Oil Co. | ,, | 2,710 | ,, |
| April. | Goole— | | | |
| 14 | Goole Steamship Co. | ,, | 2,910 | Hamburg |
| | Harwich— | | | |
| 28 | Great Eastern Railway | ,, | 2,400 | ,, |
| 28 | ,, ,, | ,, | 60 | Antwerp |
| 28 | ,, ,, | ,, | 760 | ,, |
| 30 | ,, ,, | ,, | 440 | ,, |
| 2/5 | ,, ,, | ,, | 280 | ,, |
| | Hull— | | | |
| 28 | W. Gilyott & Co. | ,, | 27,100 | New Yor |
| 28 | ,, | ,, | 1,420 | ,, |
| 29 | ,, | ,, | 7,180 | ,, |
| 1/5 | T. Wilson, Sons & Co. | ,, | 19,480 | ,, |
| 1/5 | ,, ,, | ,, | 60 | Copenhag |
| 1/5 | Wilson's & N. E. Railway | ,, | 200 | Hamburg |
| 1/5 | ,, ,, | ,, | 1,560 | Antwerp |
| | Manchester— | | | |
| 29 | Meade-King, Robinson & Co. | ,, | 295,000 | Hamburg |
| 29 | ,, ,, | ,, | 2,080 | ,, |
| 29 | ,, ,, | ,, | 4,000 | Philadel. |
| 29 | Bramwell Fern & Co. | ,, | 23,662 | ,, |
| 29 | T. Wilson, Sons & Co. | ,, | 2,780 | ,, |
| 29 | Liverpool Storage Co. | ,, | 6,480 | ,, |
| 29 | ,, ,, | ,, | 27,030 | New Yor |
| 30 | Bramwell, Fern & Co. | ,, | 23,400 | Philadel. |
| 30 | McLiners, Ltd. | ,, | 10,600 | ,, |
| May. | | | | |
| 1 | G. B. Taylor | ,, | 4,530 | ,, |
| 1 | Anglo-American Oil Co. | ,, | 20,430 | ,, |
| 1 | Statter & Co. | Lub. Oil and Gr. | 3,260 | ,, |
| 4 | F. Schofield & Co. | Lub. | 3,550 | ,, |
| 5 | British Petroleum Co. | Lamp | 879,000 | Batoum |
| 5 | D. Currie & Co. | Lub. | 1,600 | Hamburg |
| 5 | Anglo-American Oil Co. | ,, | 83,840 | New Yor |
| 5 | ,, ,, | Lub. Gr. | 1,200 | ,, |
| 5 | W. W. Jones, Dooly & Co. | ,, | 3,040 | ,, |
| April. | Newcastle— | | | |
| 25 | Tyne-Tees Steamship Co. | Lub. | 1,150 | Hamburg |
| 30 | ,, ,, | ,, | 240 | ,, |
| 30 | ,, ,, | ,, | 3,200 | Antwerp |
| 1/5 | P. H. Matthiessen & Co. | ,, | 70 | Bergen |
| 2/5 | Tyne-Tees Steamship Co. | ,, | 6,680 | Antwerp |
| | Glasgow— | | | |
| 29 | Clyde Shipping Co. | ,, | 3,360 | ,, |
| 29 | ,, ,, | Lub. Gr. | 370 | ,, |
| | Grangemouth— | | | |
| 29 | "Order" | Fuel | 540,700 | Port Arth |
| 29 | Jas. Currie & Co. | Lub. | 80 | Hamburg |
| | Leith— | | | |
| 28 | Jas. Currie & Co. | ,, | 800 | ,, |
| 28 | G. Gibson & Co. | ,, | 160 | Antwerp |
| 30 | ,, | ,, | 480 | ,, |
| 30 | Jas. Currie & Co. | ,, | 240 | Hamburg |
| 1/5 | ,, | ,, | 240 | Bremen |
| 2/5 | ,, | ,, | 6,000 | Hamburg |
| | Belfast— | | | |
| 30 | J. C. Pinkerton & Co. | Lub. Oil and Gr. | 690 | Antwerp |
| 1/5 | ,, ,, | Lub. | 60 | Hamburg |
| | Limerick— | | | |
| 1/5 | Limerick Steamship Co. | Lamp | 681,000 | Port Arth |
| | Dublin— | | | |
| 28 | P. Murphy & Co. | Lub. | 80 | Hamburg |
| | | | 10,433,180 | |
| | Deduct— | | | |
| | London— | | | |
| 11/3 | Anglo-American Oil Co. | ,, | 4,000 | New York |
| 21/3 | J. Spurling | Lub. Gr. | 200 | ,, |
| 16/4 | Vacuum Oil Co. | Lub. | 120 | Antwerp |
| | Liverpool— | | | |
| 21/3 | W. H. Stott & Co. | ,, | 1,200 | Riga |
| | Manchester— | | | |
| 27/3 | Anglo-American Oil Co. | ,, | 3,760 | New York |
| | | | 10,423,900 | |

# The Petroleum Review.

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## THE PETROLEUM REVIEW.

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## Editorial Notes.

### The Burmah Oil Company increases its dividends.

THE vastly improved position which the run of higher prices has created in connection with the operations of the Burmah Oil Company, Ltd., is reflected in the detailed accounts for the past year's working, which figures were laid before a meeting of the Company's directors at Glasgow this week. The profit for the past year has reached the record sum of £1,363,389, as compared with £1,069,581 during the preceding twelve months, and after placing to depreciation over £440,000 (as against £367,000 for 1912), as well as allocating £100,000 to oilfields reserve and insurance, the ordinary shares are to receive a dividend of 27½ per cent. for the twelve months, as compared with 20 per cent. for the previous year. The directors are also in a position this year to place the enormous sum of £74,612 to the forward accounts in addition to applying £220,000 to general reserve, both sums being considerably in advance of those of a year ago, when £52,240 was carried forward and £145,000 placed to general reserve. The Burmah Oil Company's record of progress has indeed been truly wonderful, for not only has an oil-producing, refining and distributing trade of international importance been soundly established, but the shareholders have already received between two and three hundred per cent. on their holdings. We congratulate Mr. J. T. Cargill and his colleagues upon having passed through another eminently successful period.

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### The Position in Mexico.

IT is an old adage that one half a story holds good until the other half is told, and it is as true to-day as ever in the past. For a few months we have been treated to most alarmist news in the daily Press relating to the situation in Mexico, and have read in headlines and upon glaring contents bills on more than one occasion that the whole oilfield regions of the country have been swept with the enemy's fire, oilfield workers put to flight, and the immense oil storage installations which abound near the coast at several points, all reduced to ashes. The story has doubtless made interesting reading, though we fear by constant repetition it has lost much of its original charm. During the present week, however, we have heard the matter of fact side of the story from Mr. R. P. Brousson, one of the directors of Anglo-Mexican Petroleum Products Company, Ltd., and his words, uttered just after the launch of another unit of the Mexican Eagle Oil Company's great fleet of oil-tankers, stand out in remarkable contrast to the high-coloured statements we have been in the habit of hearing recently. Mr. Brousson made it clear that in spite of all the alarmist news we received of Mexico and the serious position of affairs therein, Mexican oil was being produced, transported and shipped as usual, and in quantities which showed no diminution. The statement, of the truth of which there cannot be the slightest doubt, has been made at a very opportune moment, and already has done much to prevent a reiteration of the recent exaggerated reports in the Press.

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### Roumania's Crude Oil Production.

THE crude oil output of the Roumanian fields for the first quarter of the present year substantially fails to reach the record established during the corresponding period of 1913, for the three months' production of 432,800 tons is almost 40,000 tons behind the figures for the first quarter of last year, showing a diminution of 8½ per cent. There is no occasion for alarm, however, for the decline is but temporary, and may be primarily traced to the stoppage which occurred in boring operations consequent upon the Balkan trouble of last year. The relaxation of the usual activity in boring operations about twelve months ago did not naturally create an immediate decrease in the crude oil output, but is only now being felt, owing to the comparatively small number of new wells entering into exploitation. During the present quarter of the year it is anticipated that the Roumanian petroleum output will considerably increase; therefore the recent diminution is of little importance excepting as showing how imperative it is that there must be a continuity of drilling activity, otherwise the most prolific oilfields of the world will gradually decline.

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### America's Growing Export Trade.

WITH the publication of the details of the exports of American petroleum products during March it is possible to compile figures showing the total quantities of American petroleum products which have been sent abroad during the nine months of the fiscal year, for the Government returns are made up from June to

June. During the three quarters of the fiscal year the demand for American petroleum on the markets of the world has continued to expand to a particularly healthy degree, the total quantities exported during this period having been 1,637,670,400 gallons of a value of over 110,000,000 dollars. The gain in volume, when the details are compared with those of the nine months of the preceding year, show that the export trade has recently expanded to the extent of fourteen per cent., but the quotations have ruled slightly lower than formerly. This gain has been divided between lubricating oils and gas oils, residuum and liquid fuel, for the export of motor spirit and illuminating oils show slight decreases. The figures, however, on the whole, are very favourable, as showing the healthy foreign demand there is experienced to-day for American petroleum products.

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## LUBRICATING AND FUEL OILS, LTD.

### Resignation of Mr. G. H. Funck.

We have been officially notified of the fact that Mr. George Henry Funck has resigned the position of managing director of the Lubricating and Fuel Oils, Ltd., and that Mr. Adolph Rahe has been appointed to act as managing director in conjunction with Mr. Richard Robinson. Mr. Funck, however, will still remain a member of the board.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended May 9th was 114,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended May 10th was 229,090 poods, or about 3,695 tons. The total production for the year from January 14th to May 10th was 4,723,955 poods, or about 76,193 tons. The total production for the corresponding period last year was 4,924,225 poods, or about 79,423 tons. Price of crude oil at Baku is now 37¾ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended May 10th was 25,188 poods, or 406 tons.

European Oilfields Corporation, Ltd. — The production for the week ended May 10th was 111,600 poods, or 1,800 tons.

Baku Russian Petroleum Company, Ltd.—The production for the week ended May 9th was 123,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended May 9th was 19,618 poods (316 tons).

Maikop New Producers, Ltd.—Production for week ended May 9th was 6,571 poods (106 tons).

British Maikop Oil Company, Ltd.—Production for week ended May 10th was 10,767 poods, or 174 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended May 9th, 94,009 poods, or 1,516 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended May 12th was 381,531 poods, or 6,154 tons. Corresponding period last year, 2,075 tons.

Maikop Midland.—Production at Krimskaya for week ended May 9th was 6,350 poods, or 102 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended May 9th was 13,500 poods (218 tons).

Shagirt (Cheleken) Oil.—Estimated production of crude oil for week ended May 9th was 665 poods (11 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended May 9th was 1,750 poods, or 28 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended May 12th, 160,100 poods, or 2,582 tons.

Cheleken Oilfields, Ltd.—Estimated production for the fortnight ended May 9th, 1,808 tons.

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## IMPORTANT DEVELOPMENTS IN MAIKOP.

### Oil Found on Plot 120.

Important news has again been received from the Maikop field which tends to materially confirm the opinion held by the most eminent experts that oil in commercial quantities would be met with in the Khadijenskaia district. Following upon the success obtained in the Deep Drilling Company's well on plot 108, the Anglo-Maikop Corporation has now found oil in its well on plot 120 at a depth of 2,096 feet. When the drill had reached this depth, the oil rose some forty feet in the well. The drill is now proceeding deeper, and in view of the fact that the water stratum is properly shut off, the well may be brought into permanent production in a few days.

# THE LAUNCH OF THE "HERCULES."

## Mrs. R. P. Brousson Christens an Interesting Unit of the Mexican Eagle Oil Company's Fleet.

THE launching of the powerful ocean-going tug Hercules" last Tuesday afternoon on the Tyne iarked an interesting stage in connection with the conruction of the enormous fleet of oil-tankers for the lexican Eagle Oil Company. Within a few months the hole of the twenty gigantic tankers which are to transort oil products from the Mexican ports to the markets f the world will be in commission, and, as may be nagined, the manœuvring of these enormous vessels equently necessitates the utilisation of powerful tugs. It is quite in accord, therefore, with the carefully hought-out policy of Messrs. S. Pearson & Son, Ltd., vho are the London financial agents for the Mexican Eagle Oil Company, Ltd., that they should take every recaution to secure a miniature fleet of powerful tugs o take charge of the handling of the mammoth 15,000-on tankers in the various Mexican ports. As a matter f fact, two of these specially designed tugs are already n active commission—we refer to the "Cernicalo" and he "El Aguila," the former being at Tuxpam and the atter operating at Tampico, and it is in order that this ssential branch of the Mexican Eagle Oil Company's cean transport business should not be liable to unxpected delays that the "Hercules" has been onstructed to act as a stand-by.

As its name implies, the "Hercules" is of a specially owerful character, having the necessary strength to uickly handle the largest oil-tankers with comparative ase. The vessel which, as we have already inferred as been built to the order of Messrs. S. Pearson & Son, Ltd., is 125 ft. in length with a 28 ft. beam. She is itted with all the latest appliances for heavy towage, and salvage work, her equipment including steam steering gear, steam windlass, and special type winches for heavy lifts, while the hold is arranged for the carrying of large mooring chains. The "Hercules" is to be fitted with triple-expansion engines of 900 indicated horse-power, steam being supplied by a large single-ended boiler working at 180 lbs. pressure. Like the oil-tankers which she will no doubt be frequently called upon to assist, the "Hercules" is to be run on liquid fuel, Mexican oil being used for this purpose, and atomised upon the White variable pressure system, a full description of which has already appeared in the REVIEW.

Photo by] The Launching Party under the Bows of the "Hercules." Topical Press Agency.

The vessel is fitted throughout with electric light, and in order to assist manœuvring at night, a powerful searchlight is affixed to the bridge. Marconi's system of wireless telegraphy is to be installed, so that the "Hercules" may, when occasion requires, be in constant communication with the larger units of the Mexican Eagle Oil Company's fleet. Semaphore signalling is also provided, and inasmuch as the vessel is to operate in a tropical climate, mosquito-proof curtains are fitted to all doors and windows aboard, while the decks and deckhouse are constructed of teak. Ample accommodation is provided for a large crew, the principal rooms being finished in polished mahogany and having folding beds.

The "Hercules" has been constructed by Messrs. Jos. T. Eltringham & Co., Ltd., at Willington Quay-on-Tyne, it being from the slips of their new shipbuilding yard that Tuesday's ceremony took place. The vessel, in fact, was one of two launched practically simultaneously from the yards, which have been opened only a few months, and from this point of view alone was more than ordinarily interesting.

The launching ceremony was gracefully performed by Mrs. R. P. Brousson, wife of one of the directors of the Anglo-Mexican Petroleum Products Company, Ltd., and as the "Hercules" took the water Mrs. Brousson, while breaking the customary bottle of wine over the bows, wished it a long and prosperous career in connection with the Mexican oil transport trade.

The numerous party of guests afterwards adjourned to the offices of Messrs. J. T. Eltringham & Co., Ltd., where light refreshments were served and several complimentary toasts submitted. Mr. D. W. Fitzgerald, representing the builders, occupied the chair, he being supported by Mrs. Brousson on his right and Mrs. R. Hastie on his left, while at the chief table, among others, were Mrs. Fitzgerald, Mr. and Mrs. A. F. Fitzgerald, Mr. D. W. Fitzgerald, jun., Mr. and Mrs. G. Renwick, Mr. R. P. Brousson, Mr. J. S. Smith (Messrs. S. Pearson & Son, Ltd.), Mr. J. Donovan, and Mr. E. W. Delacour (publicity manager of the Anglo-Mexican Petroleum Products Company, Ltd.).

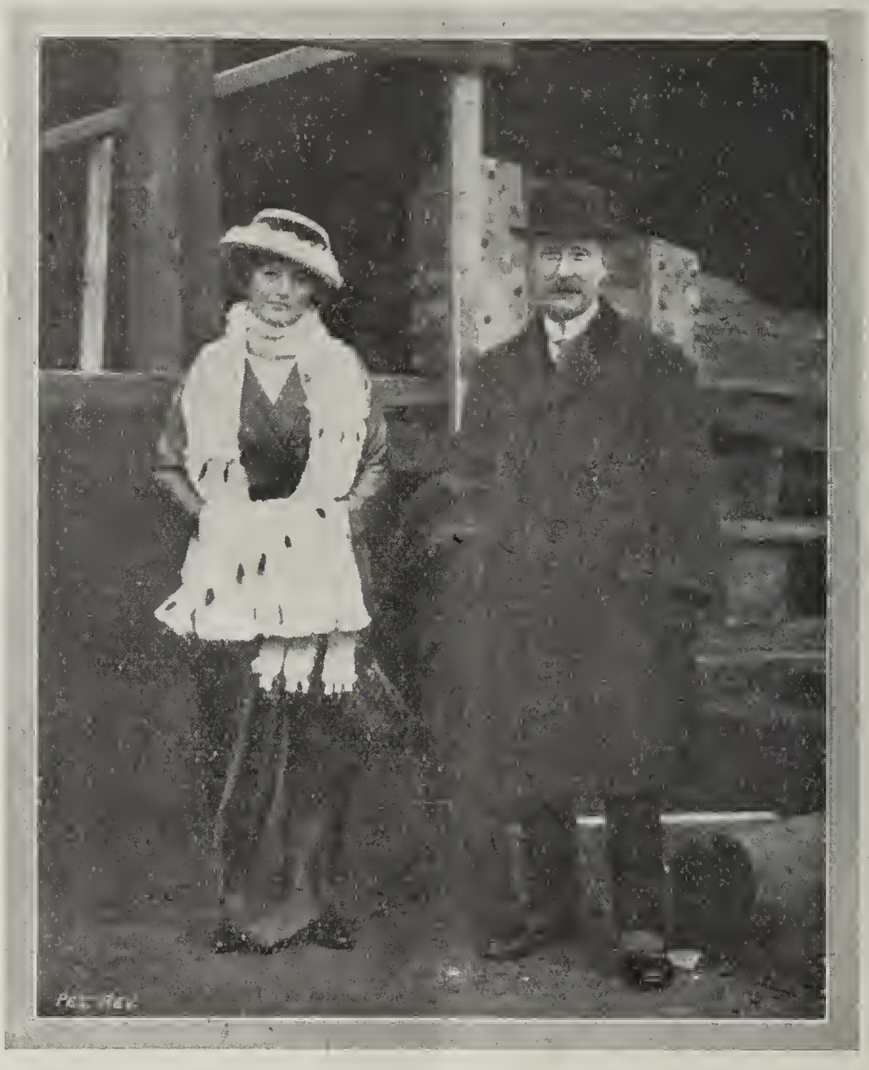

*Photo by*] **Mr. and Mrs. R. P. Brousson.** [*Topical Press Agency.*

The room was tastefully decorated with international flags and bunting, while immediately behind the main table was an appropriate design, "Success to the New Ships."

Mr. Fitzgerald, in asking the guests to drink to the success of the vessels they had seen launched that afternoon, said that there was a touch of personal sentiment in the proceedings that day, inasmuch as the launches were the first from his Company's new yard. Whatever question there might have been as to the necessity of their leaving the old yards and taking over others at Willington Quay could not in the future arise, for as those present saw, though the two vessels they had launched had only been commenced on February 3rd last, they were ready to take the water at the appointed time—just over three months later. Therefore they had to admit it was a fair rate of progress in a very short time, and it was a matter for congratulation that their friends—Messrs. S. Pearson & Son—had entrusted them with so important an order. He could assure the owners of the "Hercules" that they would have no fault to find with the work nor the design of the vessel. His Company—he was pleased to say—were always on good terms with their workmen, most of whom had followed them from the old yards at South Shields to Willington Quay. It was, however, a matter of regret that there was not a single house in the district for them to live in, and so the only way out of the difficulty had been for the Company to engage one of the old Tyne boats to bring their workmen up to the yards in the morning and take them back every evening. The scarcity of workmen's dwellings in the locality was to be greatly deplored, for it acted as a very serious handicap to the growth of the shipbuilding industry in that district as well as other branches of employment directly associated with it.

He desired to express his grateful thanks to Mrs. Brousson for the graceful manner in which she had performed the very important ceremony of christening the "Hercules," and he asked her kind acceptance of a slight memento of that happy occasion, at the same time proposing "Success to the 'Hercules.'"

Mr. Fitzgerald then handed to Mrs. Brousson a pretty silver wrist bag.

The toast having been heartily received,

Mr. J. S. Smith, on behalf of the owners, briefly responded, expressing the hope that the "Hercules" would efficiently discharge her important duties in the Mexican ports. As representing the owners, he especially desired to thank Mrs. Brousson for having specially travelled from London to perform the launching ceremony, and he desired her acceptance of a souvenir of the interesting occasion from the directors of the Mexican Eagle Oil Company.

The souvenir took the form of a most artistic large silver fruit and flower bowl, bearing the inscription "Presented to Mrs. R. P. Brousson by the Mexican Eagle Oil Company on the launch of the 'Hercules,' May 12th, 1914."

Mrs. Brousson, in accepting both gifts, said: Mr. Fitzgerald, Mr. Smith, ladies and gentlemen, it gives me very great pleasure to come to Willington Quay to-day in order to launch the "Hercules," more especially on this particularly auspicious occasion. I should like to say that I hope the vessel will be the first of a long, long line of boats to be launched at this new yard, which will greatly add to the financial success of the yard and especially to the renown of Messrs. Eltringham & Co. I am, indeed, very grateful for the lovely gifts I have received—gifts which I shall always treasure as mementoes of a very happy and interesting occasion.

Mr. R. P. Brousson, in proposing the toast of "Success to the Builders of the 'Hercules,'" said what had struck him as a coincidence in the ceremonies of that afternoon had been the fact that the two vessels which had been launched represented the oldest and the youngest industries connected with the sea—the fishing trade and the oil industry—and the combination of the two augured well for the future prosperity of Messrs. Eltringham & Co. at their new yard. He understood that in moving their yards from the other side of the river they wanted more room, and those who had inspected the new yards would agree with him that no comment was necessary on the wisdom of that step. The firm had, he thought, very wisely decided to specialise in boats of the size they had seen launched that day up to vessels with a maximum tonnage of 2,000 and a length of 300 ft. It seemed to him that in taking that course they were making a good and a wise bid for future prosperity. The "Hercules" which had just taken the water, was destined for service in Mexico in connection with the work of the Company with which he was associated, and was to be used at Puerto Mexico in connection with the manœuvring of the large oil-tankers, and, as representing the owners, he had no doubt that the news they would get of the vessel when she was in active service would be good news and a credit to the builders.

Inasmuch as he was touching upon Mexico, it might not be out of place if he referred in a word or two to the position there. It was a fact that in spite of the alarmist news they found each day in the Press regarding the Mexican situation — news which was grossly exaggerated — the Company with which it was his privilege to be connected were still loading and unloading as well as dispatching bulk cargoes of oil up to the present time without any interference and without any diminution. He desired to wish the firm of Messrs. Eltringham & Co. continued prosperity, but the fact that one of the vessels launched that day was for an owner who had had thirty similar vessels constructed by the firm was the best possible testimonial they could have that the builders did their work well. He was given to understand that their chairman of that day would in future take a somewhat less active part in the management of the Company, for his son was to take the work off Mr. Fitzgerald's shoulders. He was sure the company present would join with him in expressing the hope that Mr. Fitzgerald, jun., might have the full enjoyment of good health in order to carry on the business in the same prosperous way as had been the case heretofore. He therefore proposed the toast of "The Builders of the 'Hercules.'"

*Photo by*] **The "Hercules" takes the water.** [*Topical Press Agency.*

Having been enthusiastically honoured, Mr. E. Renwick responded to the toast, thanking those present for he honour they had conferred upon the firm. As in the past, his Company would turn out the best possible work, and with the aid of the new machinery and the new appliances they now had at the new yard, he hoped that high standard of excellence would in the future even show some improvement. He trusted that heir good friends the Mexican Eagle Oil Company would be so delighted with the work put into the "Hercules" that they would come back to his firm with more orders, which they would always welcome. Mrs. Brousson had gracefully launched the "Hercules," and he hoped that when the vessel got to Mexico the present troubled waters there would have oil poured upon them, and that among restful conditions the Company would be able to continue its great work in developing the Mexican petroleum industry successfully and profitably.

The chairman having been thanked for presiding over the interesting gathering, the proceedings terminated, another link having been successfully added to the great chain which will connect Mexico's enormous oil wealth with the consuming markets of the world.

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## THE LAUNCH OF THE "SAXONIAN."

On Thursday afternoon the Greenock and Grangemouth Dockyard Company, Ltd., launched from their Greenock yard the oil-carrying steamer "Saxonian," which they have built to the order of Messrs. The Petroleum Steamship Company, Ltd., London (Messrs. Lane & Macandrew, managers). The dimensions of the vessel are :—Length, 376 ft.; breadth, 51 ft. 9 in.; carrying capacity, 7,000 tons, of a draught of 23 ft. 10 in.

The vessel, built to the highest class at Lloyds, has twenty-eight oil-tight compartments for the carriage of all kinds of oil in bulk, from benzine down to the heaviest grade. The pump-rooms, situated forward of the bridge amidships, contain powerful sets of pumps capable of pumping from either side of the ship, and of discharging ashore from either side or over the stern. They are also capable of pumping from one tank into another and discharging at the same time. A very complete installation of deck machinery and cargo gear has been fitted for the quick loading and discharging of case oil. A complete installation of electric light is fitted throughout. The accommodation for captain and officers is situated in the bridge amidships, for the engineers in the poop, and for the crew in the forecastle. Triple-expansion engines will be supplied by Messrs. Dunsmuir & Jackson, Ltd., Govan, capable of driving the vessel at a good speed when fully loaded. The vessel was built under the superintendence of Captain Morris, representing the owners, and of Messrs. Flannery, Baggallay & Johnson, Ltd., London, represented by Mr. W. H. Waid, their resident surveyor.

The naming ceremony was performed by Miss Nellie Millar, daughter of the managing director of the builders. After the launch the invited guests adjourned to the model room, where the usual toasts were proposed and responded to.

# DEVELOPMENTS IN THE OILFIELDS.

## LATEST PROGRESS REPORTS OF ENGLISH COMPANIES.

**Tulsa Oil Company, Ltd.**—Week's production, 2,355 barrels (325 tons).

**United British Oilfields of Trinidad, Ltd.**—Production week ended May 8th, 1,000 tons.

**Traian Roumanian Oil Company, Ltd.**—Production week ended 9th instant, 427 tons.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production week ended 9th instant, 408 tons.

**Trinidad Leaseholds, Ltd.**—Cable from manager:—"Well No. 1, depth 158 ft.; still in upper sand. Oil has begun to flow by itself; about 75 barrels per day."

**Maikop Premier.**—The low production during the past week has been caused by destruction of derricks of well No. 5 and of well No. 7 by fire. New well No. 7 promises to be good. Stormy weather."

**Anglo-Egyptian Oilfields, Ltd.**—Telegram received from Gemsah states that the production for the week was 1,950 tons (last, 3,352 tons), of which Hurgada well No. 3, 161 tons.

**British Colonial Petroleum Corporation, Ltd.**—Manager cables:—"Tsintea property—1st to 7th May, work interrupted two days, cleaning well. Production, 127 tons; averaging per working day, over 25 tons, against 19 tons per day during April."

**International Russian Oilfields, Ltd.**—Drilling report (four weeks ended May 9th). Plot No. 77—Depth reached, 2,727 ft.; increase, 46 ft.; formation, shale; inserting 6-in. casing. Plot No. 107—Depth reached, 1,596 ft.; increase, 20 ft. Under-reaming cleaning cavings and inserting 12-in. casing. Preparing to change over from rotary to percussion drilling.

**Roumanian Consolidated Oilfields, Ltd.**—Production week ended May 9th, 1,137 tons. Cable from Ploeshti, dated May 12th:—"Moreni—well No. 30 flowed for 12 hours with terrific force at the rate of 2,000 tons a day before sanding up: 850 tons (half of which included in weekly return) already pumped into tanks; remaining oil in reservoirs. In view of violent eruption further precautions necessary. Repairing derrick and fitting flow-head before re-starting well; may take few days."

**Spies Petroleum Company, Ltd.**—All Baskakoff wells stopped for the greater part of 4th instant owing to strike of bailing men, now settled. There was a further stoppage of these wells for two hours on the 9th instant, as all boiler fires had to be extinguished owing to strong eruption of gas and oil on an adjoining property. Well No. 1, plot 127 (South Baskakoff) has been out of production all the week for deepening. Previous to being taken out of production this well was producing 9,000 poods per day. The latest information, received last Wednesday, states that the well has been deepened 56 ft. into the oilsand, which still continued.

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## THE RUSSIAN NAVY AND PETROLEUM EXPLOITATION.

THE Ministry of the Russian Navy intends to obtain an area of 80 dessiatines situated in the Saboontchi and Ramany areas of the Baku district. A meeting held on the subject between the President of the Council of Ministers and the Ministry of the Navy has resulted in a final decision unfavourable to the project, and the Minister of the Navy has acknowledged that his department has no reason whatever to independently undertake exploitation of petroliferous areas. The decision has met with the general approval of the Baku petroleum producers.

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## MAIKOP PETROLEUM PRODUCTION DURING MARCH.

THE production of crude oil on the Maikop oilfields during March amounted to 387,554 poods, and that during the first quarter of the year to 1,174,031 poods, which is practically equal to the production during the corresponding period last year. There were in exploitaion 18 plots, and 155 wells of depths varying from 135 to 2,268 ft., and of diameters from 4 to 14 in., and with an average depth of 446·9 ft., and average diameter of 7·42 in. The principal plots, according to their yield, were :—

| | | Poods. |
|---|---|---|
| No. 21 | Maikop Premier Oil Syndicate | 90,115 |
| ,, 3 | Black Sea Oilfields | 88,946 |
| ,, 170 | Andreas | 74,969 |
| ,, 30 | British Maikop | 56,736 |
| ,, 16 | Andreas | 28,229 |
| ,, 202 | Maikop Victory | 22,717 |

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## THE PETROLEUM INDUSTRY OF MEXICO.

### Important Details.

OUR own correspondent in Mexico, in a letter eceived as we go to press, states that in spite of the eneral unrest (of which he adds "you in London hear o much") there is considerable activity noticeable on he fields, though drilling operations have in some ases been suspended for the time being. Large umbers of the wells are shut down, but this is not on ccount of hostilities, but due to the lack of transortation facilities. If this difficulty can be quickly urmounted, then Mexico will have a crude oil production of nearly 400,000 barrels per day, or more an double as much as is at present being either ored or marketed. Nearly fifty companies are perating, and one half of this number are producing il, but in all there are nearly one hundred companies ho have secured oil lands in the Republic. When e new pipeline is completed there will be approxiately 500 miles of eight-inch oil pipeline from the elds and refineries to seaboard. The whole of the exican oil is produced from twelve districts, six of hich are controlled by Lord Cowdray's oil interests, ho last year produced fully one half of the whole oil tput of Mexico.

Our correspondent adds "When the present trouble at an end, Mexico will receive a remarkable impetus, d its oil industry will be developed at a rate never fore known."

*Published April 27th, 1914.*

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◆

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Registered on May 5th by Jordan & Sons, Ltd., 116 and 117, Chancery Lane, W.C., agents for Drewry & Newbold, Burton-on-Trent. Capital, £3,000 in £1 shares. Objects: To acquire the business of engineers, petrol lighting contractors, and petrol lighting plant manufacturers, etc., now carried on by W. Hartley at 56, Derby Street, Burton-on-Trent, and elsewhere in Staffordshire, under the style of "The Invetrol Gas Light Company," and by J. T. Shakespeare at 91, Bracebridge Street, Birmingham, and elsewhere, under the style of "Neville & Co.," and to carry on the business of manufacturers and factors of chemical plant, oils for lighting and other purposes, and oil light fittings, etc.; also to enter into an agreement with W. Hartley and J. T. Shakespeare. Signatories: W. Hartley, 56, Derby Street, Burton-on-Trent, and J. T. Shakespeare, 91, Bracebridge Street, Birmingham. First directors: W. Hartley (managing director), J. T. Shakespeare (chairman), and T. Worthington. Private company.

◆

### INTERNATIONAL OIL PRODUCTS, LTD.

Registered on May 6th by Slack, Munro, Saw & Co., 31, Queen Victoria Street, E.C. Capital, £10,000 in 1s. shares. Objects: To acquire any oil, petroleum, or mineral-bearing lands and mines, etc.; and to turn to account the same, and to carry on the business of getters, refiners, and merchants of petroleum, naphtha, and oil, etc.; also to enter into an agreement with M. Benson. Minimum cash subscription seven shares. Signatories, M. Benson, and C. L. Fisher, both of 28, St. James's Square, S.W.; M. Griffith, 62, Old Broad Street, E.C.; G. Head, 39d, Emperor's Gate, South Kensington, S.W.; S. R. Pope, 176, Broadfield Road, Hither Green, S.E.; C. Shortland, 61, Endsleigh Gardens, Ilford; and W. H. Farren, 51, Carnarvon Road, Stratford, E. First directors (who are to number not less than two nor more than six) are M. Benson, C. L. Fisher, M. Griffith, and Major G. Head. Registered office, 28, St. James's Square, Westminster, S.W.

◆

### THE UNION OIL COMPANY OF SOUTH AFRICA, LTD.

Registered on May 7th by Downer & Johnson, 426, Salisbury House, E.C. Capital, £100 in £1 shares. Objects: To acquire property, options and rights of all kinds, and in particular oilfields, shale fields, oil-bearing lands, wells, and lands containing or believed to contain oil, and to turn to account the same; to search for, prospect, examine, and explore ground supposed to contain oil, shale, petroleum oil, or other oil-bearing deposits, or wells, and to seek and obtain information with regard to oilfields, etc.; to buy, construct, work and maintain pipelines, or any other means for carrying or transmitting oil, and to acquire and work pumping stations; to bore, drill, or sink wells for petroleum, or other oils, shale or oil deposits, and to carry on the business of owners, lessors or lessees, or managers of oilfields, oil wells, producers, manufacturers, importers, exporters, distillers, merchants, and vendors of and dealers in oils, and the products and by-products of the same, etc. Signatories, W. W. Macalister, 80, Coleman Street, E.C.; F. A. Blair, 73, Bishopsgate, E.C.; A. Powles, Broad Street House, E.C.; T. F. Smith, 88, Church Road, Hanwell, F. E. Hales, 243, Dashwood House, E.C.; L. S. Johnson, 426, Salisbury House, E.C.; and H. G. Downer, 426, Salisbury House, E.C. Minimum cash subscription, five per cent. of the nominal amount of the shares. Registered office, 80, Coleman Street, E.C.

◆

## DECEASE OF DR. M. A. GUCHMANN, OF BAKU.

We regret to announce the decease of Dr. M. Adolf Guchmann, of Baku, one of the vice-presidents of the Baku branch of the Caspian and Black Sea Society, and a gentleman well known in Continental petroleum circles. Dr. Guchmann has for many years been prominently associated with the Baku petroleum industry, for which he has rendered many valued services.

◆

## DEATH OF DR. HERMAN FRASCH.

The death is announced in Paris of Dr. Herman Frasch, a gentleman well known in connection with the science of petroleum. Dr. Frasch applied his extensive knowledge of science to the refining of petroleum, and to other matters connected with the oil industry, and his process of desulphuring oil is now widely used in the Lima petroleums, where at a cost of one-half cent per barrel the oil is freed from its sulphur contents.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/0-24/0 |
| 5% Debentures ... ... | 600,000 | £100 | 95-100 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 5/1$\frac{1}{2}$-5/7$\frac{1}{2}$ |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5/6-6/6 |
| European Oilfields ... ... | 319,181 | 10/- | 6/3-6/9 |
| Lobitos Oilfields, Ltd. .. | 400,000 | £1 | 32/0-33/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 43/0-43/6 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{7}{8}$-$\frac{15}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 26/6-27/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/9-5/3 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1$\frac{1}{8}$-1$\frac{1}{4}$ |
| " " Ord... | 690,000 | fully pd. | 12/0-13/0 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | 5$\frac{1}{8}$-5$\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | 10$\frac{7}{16}$-10$\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/0-22/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 640 | 642 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 227 | 228 |
| Nobel Bros.... ... ... ... ... | 5,000 | 19,150 | 19,200 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 990 | 995 |
| Russian Naphtha Society ... ... | 100 | 182 | 183 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 180 | 181 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/– pd. | 235,000 | £1 | 25/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £11$\frac{1}{4}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 92/3 |
| " Pref. ... ... ... | 250,000 | £1 | 27/3 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 36/3 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 30/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 24/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/3 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/– paid) .. | 110,500 | 17/– | 82/0 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 14/9 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 46/6 |
| " "B" Deb. ... | 160,000 | £100 | £145 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.) |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# AMERICAN NOTES.

**The Mexican Fields.**—There are at the present time in Mexico 550 producing oil wells, and of this number 150 were drilled last year. The average daily production of the fields is placed at 175,000 barrels.

**Gulf Coastal Shipments.**—During March the total quantities of petroleum products shipped from the Gulf ports amounted to 2,015,000 barrels, being somewhat under the quantities exported for the two previous months.

**American Exports during March.**—The total quantity of petroleum exports from America during March amounted to 172,520,000 gallons, and were valued at $11,450,000. The amount is 27,000,000 gallons over the exports for the corresponding month a year ago.

**Possible New Field.**—It is reported that Chicago parties have been prospecting for oil at Yuma, Virginia, some forty miles north of Bristol, and have met a good showing of the fluid at a depth of 1,000 ft. The test was drilled owing to the prevalence of oil seepages, but it has been reported adversely upon by geologists.

**Another Mexican Company.**—The latest important company to be formed to operate in Mexico is the Freeport and Tampico Oil Company, whose authorised capital stock is $10,300,000. The charter of the company also provides that it can operate in the United States.

**Californian Production during March.**—The output of crude oil in the Californian fields during March was larger than has ever been the case in the history of the State's petroleum production. Stocks were materially increased, in spite of the fact that numerous wells are still shut down. It is estimated that the over-production amounts to approximately 10,000 barrels daily.

**A New Texas Gusher.**—Interest in oil developments in Texas has been stimulated by the bringing in of a well owned by the Gulf Refining Company, in the Edgerley Pool, which was brought in at a depth of 3,000 ft. Its initial flow was 4,000 barrels daily, with little water. The same company is actively drilling other wells in the vicinity.

**Successful Deep Drilling.**—Deep drilling will henceforth be the order of the day in the Caddo field of Louisiana, owing to the success which has attended the well of the Atlas Oil Company. Some three months ago the well was brought in with a production of not more than 60 barrels daily, but after being drilled deeper it came in with 1,200 barrels per day, and is now settling down to 1,000 barrels daily. Another successful deep completion has been that of the Lake Front Oil Company's well in the same locality.

**Oil in Alaska.**—Californian drillers who have recently been prospecting for gold in Alaska, report a great number of oil seepages in various places over a locality seventy miles in length. Holes were dug in many of the seepages from ten to twenty feet deep, and the oil that escaped into these was of a light amber colour of a paraffin base. According to the geologists of the Government, the oil which has so far been found is of a high grade, being rich in motor spirit.

**Mexican Oil for America.**—During the last week of April no less than 200,000 barrels of Mexican crude oil arrived at New York from Tuxpan by the tank steamers "San Gregorio" and "San Isodoro," each vessel carrying practically its full quantity. The cargo of the first-mentioned tanker was for the Standard Oil Company of New Jersey. The arrival of the two tankers from Mexico within two days created great interest, for it was eloquent evidence that the production and transport of Mexican oil is not materially interfered with owing to hostilities.

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, MAY 16, 1914.

## BRITISH ENTERPRISE IN CALIFORNIA.

UNDER the title of the British Union Oil Company, Ltd., a new British corporation is to be formed whose operations will have a far-reaching effect in regard to the future of California's petroleum industry. The registration of the new company is the outcome of the negotiations which have been proceeding for many months between the well-known London shipowners, Messrs. Andrew Weir, and the officials of the Union Oil Company, for the control of the latter organisation.

News has reached London on several occasions of the consummation of this important deal, which means so much to the future of the petroleum industry of California, but inasmuch as the deal was only concluded a few days ago, it is obvious that such information was premature. The fact remains, however, that there has been little doubt since the opening of negotiations that sooner or later the important arrangements whereby such an influential company as the Union would pass under British control would be satisfactorily concluded, and that British capital would again be in a position to strengthen its hold upon the petroleum industry of such a flourishing state as California.

At the present time it is, of course, impossible to go into the full details regarding the transaction, though it is safe to assume that it will not only be the means of providing the shipping industry of this country with an almost inexhaustible supply of liquid fuel, but it will materially help to encourage the expansion of the Californian petroleum industry by providing an enormous and quite a new channel for the consumption of Californian liquid fuel.

We hope to be in a position to publish full details of this important deal in our next issue, for we learn that these were laid before the stockholders of the Union Oil Company at their meeting at Oleum a fortnight ago ; in the meantime the official statement issued by the Treasurer of the Union will be of considerable interest. It reads :—

> "To the Stockholders of the Union Oil Company, Union Provident Company, United Petroleum Company :
>
> "For the purpose of fully and satisfactorily financing the Union Oil Company of California, contracts have this day been signed with Messrs. Andrew Weir and R. Tilden Smith for the sale of $15,000,000 of the treasury stock of the Union Oil Company of California at par.
>
> "In order to clear the way for the above financing of the Union Oil Company of California and to safeguard alike the present stockholders of the company and the purchasers of the stock to be issued, Mr. Lyman Stewart and his associates have agreed to convert their holdings of stock in the United Petroleum Company and Union Provident Company into preference shares of a British corporation to be formed, and to be named 'British Union Oil Company, Ltd.'
>
> "An opportunity will be offered to all stockholders of the Union Oil Company of California, Union Provident Company and United Petroleum Company to convert their stock upon a basis identical with the conversion of the Stewart stock.
>
> "It will be noted that the entire proceeds of thi sale will go into the treasury of the Union Oil Company of California."

Apart from this official document, other details are in our possession as to the financial arrangements which are necessary, but these latter details are for the momen unofficial and liable to some slight modification. It is understood, however, that the new English company will have a capital of not less than £10,000,000, of which over £8,000,000 will be in the form of 6 per cent. cumulative participating preferred stock, and the remainder in ordinary shares, and of the total capital approximately one-third will go to the consideration for the acquisition of the control of the Union Oi Company, which consideration, we learn, is to be spread over a period of three years.

Be this as it may, the one fact which stands out as strikingly important is that British interests are securing practical control of one of the most successful operating concerns in the Californian field, and thereby placing themselves in a position to command enormous quantities of oil fuel available for all needs.

There is no doubt whatever that the opening of the Panama Canal will not only give a remarkable impetus to the operations of the new company, but that this distinct advantage has been borne in mind during the negotiations. California has in the past been in great need of additional openings for her oil fuel supplies, and the same remark applies even to-day, for of the 50,000,000 barrels now above ground, the vast bulk is of the oil fuel quality.

To those pessimists who may be inclined to argue that a famine may be safely predicted now that it is a certainty that such a important channel for consumption is being opened, we would remark that the enormous capabilities of California as a producing country are even to-day not fully appreciated. Though month by month fresh records of crude oil output—much of the fuel oil quality—are being registered, the completed wells at present shut down in the State are capable of a production of nearly 20,000 barrels per day, while, as is known, immense tracts of proven oil-land are awaiting development operations. There need therefore, be no suggestion of shortage of oil fuel when the potentialities of California are considered.

We on our part welcome the consummation of the deal, for not only are we assured that the operations of the new company will be highly successful, but we know of a certainty that these will bring to the petroleum industry of California that impetus which it has so long needed, and at the same time will enable new competitors to enter the field in regard to the provision of liquid fuel.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MAY 11th, 1914.

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| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. | Since May 4. | From Jan. 1. |
| Belgium .. | — | — | 34,550 | 265,040 | — | — | — | — | — | 32,220 | — | — | — | 1,350 | 34,550 | 298,6 |
| Canada .. | — | — | — | 4,400 | — | 44,580 | — | — | — | — | — | — | — | — | — | 48,9 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 16,729,200 | — | 83,400 | — | 1,754,100 | — | 18,566,7 |
| Germany .. | — | 29,250 | 20,170 | 1,087,830 | — | — | — | — | — | — | — | — | — | — | 20,170 | 1,117,0 |
| Holland .. | — | — | — | 3,250 | — | — | — | 55,000 | 439,000 | 3,313,180 | — | — | — | 6,670 | 439,000 | 3,378,1 |
| Mexico .. | — | 2,872,970 | — | 11,800 | — | — | — | — | 464,690 | 1,218,860 | 14,800 | 3,668,710 | 800 | 800 | 480,290 | 7,773,1 |
| Roumania .. | 210 | 6,388,820 | — | — | 86,440 | 961,440 | — | — | — | 1,410,250 | 576,880 | 1,784,790 | — | — | 663,530 | 10,545,3 |
| Russia .. | — | 2,915,460 | — | 2,598,890 | — | — | — | — | — | 6,271,880 | — | — | — | 630 | — | 11,786,8 |
| U.S.A. .. | 2,952,210 | 38,870,890 | 755,920 | 17,738,890 | — | 91,270 | 1,123,640 | 28,151,140 | — | 5,490,500 | 497,800 | 5,562,830 | — | 218,450 | 5,329,560 | 96,115,5 |
| Other Countries | — | 3,770 | 8,570 | 139,500 | — | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 8,570 | 149,0 |
| | 2,952,420 | 51,081,160 | 819,210 | 21,849,600 | 86,440 | 1 097,290 | 1,123,640 | 28,207,600 | 903,690 | 34,466,300 | 1,089,480 | 11,103,880 | 800 | 1,982,000 | 6,975,670 | 149,779,4 |

# RUSSIAN AND ROUMANIAN NOTES.

## RUSSIAN.

**The Petrole Company.**—The profits of this company for the past year have been declared as amounting to 567,000 roubles, and a dividend of 8 roubles per share has been declared.

**The Petro-Baku Company.**—Under this name a company has been formed for the purpose of the exploitation of petroliferous plots in the Baku province with a capital of 2,000,000 roubles, divided into 20,000 shares of 100 roubles each.

**Return of Petroliferous Plots.**—The following plots have been retaken by the State :—No. 514, of over eight dessiatines, at Chatma, in the district Signakh, in the Tiflis province, and No. 92, of five dessiatines, at Berekei, in the Daghestan province.

**Russian Nafta Society.**—The Russian Nafta Society is authorised by the Ministry of Trade and Industry to acquire the property of Mr. T. V. Belozerski, consisting of plot No. 66, of an area of five dessiatines, in the district Ker-Gez, in the Baku province.

**The Aramazd Company.**—The Aramazd Company has been authorised by the Caucasian Mining Administration to open new petroleum exploitations on plot No. 58, of an area of one dessiatine, at Binagadi, and on several plots, of a total area of five dessiatines, at Surakhani.

**Taxation of Petroleum Gas.**—The Ministry of Trade and Industry is now considering a project for taxing the condensed petroleum gas obtained from petroleum wells at 60 copecs per pood. In connection with this project the Ministry is investigating the whole question of treating natural gas.

**Postponing Boring Work on the Ukhta.**—The Nafta Society has addressed the Ministry of Trade and Industry with a demand to allow them to postpone boring work on the twelve plots of the company in the Ukhta district. The great difficulties encountered by the exploiters in the district include severe climatic conditions, scarcity of population, and the total absence of ways of communication. The Ministry has granted the demand, and fixed he time for the work to be commenced (on some plots sooner and ome later) from July 10th, 1914, to February 20th, 1915. If the work is not started within the specified time the plots will revert o the State.

**Increased Duty on Motors.**—There are rumours of an ntended additional taxation on gas and petroleum motors imported nto Russia, the number of which continually increases, while the manufacture of such in the country but slowly develops. The eport on this question points out that the Russian manufacturers ave to import machinery from abroad and pay 15 per cent. more or it, while the erection of buildings and workshops is considerably earer in Russia than abroad. The same applies to motor power nd raw materials, such as iron, steel, copper, and all other materials, besides various other heavy taxations borne by the Russian manufacturers.

**A New Project of a Law for Importing Liquid Fuel Free of Duty.**—A new law has been laid before the Duma by the Ministry of Trade and Industry concerning the importation of quid fuel from abroad free of duty, which should solve the crisis f abnormal prices. These have reached the level of 40 copecs per pood, while the consumption of the railways amounts now to ver 80,000,000 poods a year. The temporary measure of allowing quid fuel to be imported into Russia free of duty has not brought he desired results in view of the shortness of the period during hich it was in force, and therefore the Ministry thinks the new roject may bring better results.

**The Extension of Exploitation Areas.**—The Ministry of rade and Industry has declared to the Duma that it shortly ntends to extend the area of petroleum production, which will ncrease the production itself, and also reduce the price of crude oil. n May 28th new auction sales for petroliferous plots will take lace—viz., 182 dessiatines—while the 127 dessiatines which were ot sanctioned by the Senate will again be submitted. Besides the bove areas, another 65 dessiatines will be opened for exploitation uring the year. The Ministry intends to increase the production oward the end of 1915 to 190,000,000 poods. Besides private production, there will also be State production organised by the Ministry of Communications and the Mining Department in order induce competition.

## ROUMANIAN.

**Petrolifer.**—The shareholders of this company are invited to a meeting at which the dissolution of the company has to be decided upon. The concessions of this company at Arbanaihi and Udreshti have been bought by the Nafta Company.

**The Liquid Fuel Question.**—The communications between the Government and the petroleum producers concerning this question are not yet terminated, but are progressing favourably. It is expected that they will end in good results.

**State Petroliferous Properties.**—A new company is being formed for the purpose of the exploitation of State petroliferous properties, for which the company will ask a concession. The "Banca Romaneasca" is the centre of the group organising the new enterprise

**Circulation of Foreign Tank Waggons on the Roumanian Railways.**—The General Directors of the Roumanian Railways have issued a circular regulating the circulation of foreign tank waggons on the Roumanian railways and ordering certain measures for accelerating the re-expedition of the loaded waggons.

**Colombia.**—Well No. 1 of this company at Moreni, which was destroyed by the recent fire, has been reconstructed, and is now again in exploitation. Work at Bana in wells Nos. 10, 11 and 12 is steadily proceeding. Well No. 79, at Gropi, continues to produce 20-25 tons a day, and the Bustenari field of the company yields about 35 tons a day.

**Société Nationale de Petrole.**—Under this name a Roumanian company has been formed for the purpose of the exploitation of petroleum, with a capital of 3,000,000 francs. The company will operate on territory situated in the various petroliferous districts. The concern is a purely national one, and no shares of the company will be disposed abroad.

**The Credit Petrolifer.**—The profits of this company during last year amounted to 919,817 francs, of which 89,818 francs are transferred to the reserve capital and 22,027 francs to the new accounts. The amortisation amounts to 732,812 francs, as against 587,532 francs in 1912. A dividend of 15 per cent. on the capital of 5,000,000 francs will be distributed to the shareholders.

**Liquid Fuel.**—A favourable result has at last been arrived at between the producers and the consumers. The refiners have consented to supply residuals to the State and various industries at the price of 5.25 francs per 100 kilos, and heavy benzine at 15 francs per 100 kilos ex refinery. The agreement has been concluded for two years, during which time the actual tariffs of transport and exportation taxes will be granted.

**Vega.**—The balance-sheet of this company for the last year shows a net profit of 1,414,842 francs, as against 500,008 francs obtained during the preceding twelve months. Out of this sum 510,501 francs are transferred to the reserve capital (which now amounts to over 1,000,000 francs), 82,657 francs to the new account, and 527,440 francs to the amortisation fund. A dividend of 20 per cent., as against 10 per cent. during the preceding year, on the capital of 3,750,000 francs will be distributed to the shareholders.

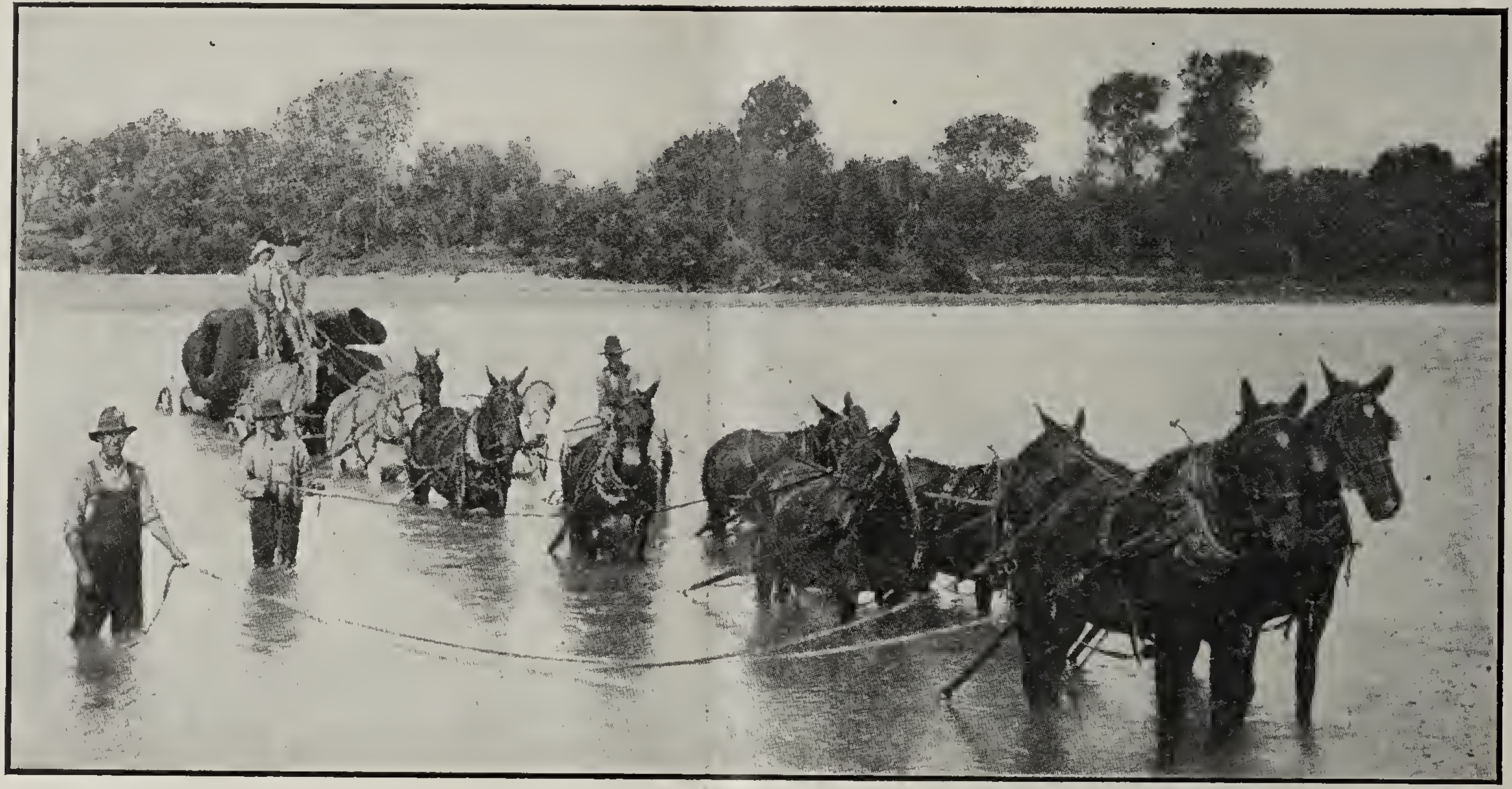
**The State Pipelines.**—The erection of the State pipelines continues in a normal way. Up to the present 40 kilometres of tubes have already been laid, and it is expected that the pipeline will be completed during the season. Contracts for the erection of all necessary buildings have already been signed, and it is hoped that these will also be erected during the season. A project for the exploitation of the pipeline is now being considered by the General Direction of the Railways, and in due time will be submitted to all important firms in order to make, if necessary, modifications to the same.

**The Roumanian Consolidated Oilfields, Ltd.**—The production of this well-known English company at Bana-Moreni now amounts to about 100-120 tons a day. Well No. 24 is being cleaned, and is expected to soon enter into production. Work is being continued in well No. 30, which has opened a new zone at Bana; from time to time it makes small eruptions. Great activity is displayed by the company in order to fully develop its vast concessions. An exploration well has been bored at Cornu, in the Campina Valley, and shortly another well will also be started at Malaeshti, while an old well at Pacuretzi will be deepened.

# Supplying the Cushing Field with Drilling Equipment.

## A UNIQUE PHOTOGRAPH.

In the last issue of the Review, it will be recollected, we published an article dealing with the Cushing field of Oklahoma, which locality has now an output of high grade crude oil amounting to 70,000 barrels daily. Inasmuch as the Cushing field is now the centre of great activity, the illustration which we herewith give, and which is reproduced from our excellent contemporary, the *Oil and Gas Journal*, will be of considerable interest. With the rapid development of Cushing field, there has been an enormous demand oilfield supplies, and in many instances these have been brought to the drilling site without the ov coming of great difficulties in regard to the transp The picture here shows the transport of some oilfi equipment across the Cimarron River en route for Cushing field.



# PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING APRIL.

## THE SHIPMENTS INTO VARIOUS PORTS.

The various shipments of petroleum products into the U.K. ports during April are given in the following table. The total imports for the month were 26,631,7 gallons, or 8,202,150 gallons less than in March.

| Port. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Description |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 4,590 | — | — | — | — | — |
| Barrow ... ... ... | — | — | — | — | 1,513,700 | — | — |
| Belfast ... ... ... | — | 4,020 | — | — | 1,320 | — | — |
| Boston ... ... ... | — | 910 | — | — | — | — | — |
| Bristol ... ... ... | 1,558,190 | 130,040 | 2,750 | 713,010 | — | 267,850 | — |
| Cardiff ... ... ... | — | 2,810 | — | — | — | — | — |
| Cork ... ... ... | — | 330 | — | — | — | — | — |
| Dublin .. ... ... | 720,000 | 2,580 | — | — | — | — | — |
| Dundee ... ... ... | 400 | 2,000 | — | — | — | — | — |
| Glasgow ... ... ... | — | 239,540 | — | — | — | — | 3,52 |
| Gloucester ... ... ... | — | 1,320 | — | — | — | — | — |
| Goole ... ... ... | — | 3,080 | — | — | — | — | — |
| Grangemouth ... | 240 | 1,060 | — | — | — | 540,700 | — |
| Granton ... ... ... | — | — | — | — | 403,000 | — | — |
| Grimsby ... ... ... | — | 1,410 | — | — | — | — | — |
| Harwich ... ... ... | — | 8,320 | — | — | — | — | — |
| Hull ... . . ... | — | 229,020 | — | — | — | — | — |
| Leith ... ... ... | 3,560 | 37,060 | — | — | — | — | — |
| Liverpool ... ... | 4,100 | 594,510 | 46,080 | 23,310 | 50,000 | — | 38,500 |
| London ... ... ... | 3,442,440 | 677,640 | 20,000 | 2,692,140 | 4,891,570 | 2,157,960 | 1,763,530 |
| Manchester ... ... | 3,020 | 824,320 | 1,050 | 1,012,580 | 210 | 216,900 | 13,500 |
| Newcastle ... ... ... | — | 6,390 | — | — | — | — | — |
| Newport ... ... ... | — | 620 | — | — | — | — | — |
| Southampton ... ... | — | 150 | — | — | — | — | — |
| Sunderland ... ... | 1,254,500 | — | — | — | — | 497,890 | — |
| Swansea ... ... ... | — | 2,520 | — | — | — | — | — |
| Totals ... ... | 6,986,450 | 2,774,240 | 69,880 | 4,441,040 | 6,859,800 | 3,681,300 | 1,819,050 |

# THE MORENI FIELD OF ROUMANIA.

## AN INFORMATIVE ARTICLE.

The current issue of the *Moniteur du Petrole Romain* contains a very interesting article on the district of Moreni, as well as a detailed plan of the district, which will undoubtedly be of great service to all studying the Roumanian industry from both theoretical and practical points of view. As this field has acquired very great importance in the world's petroleum production, it will not be without interest to give a short description of the district, from the article in our contemporary.

The Moreni oilfield is situated on the west frontier of the Prahova district, at a distance of 36 kilometres west from Ploeshti, and at a height of 250 metres above the sea-level. The district is traversed by the river Cricov-Dulce, which divides it into two parts, Stavropoleos-Tzuicani on the right and Bana on the left, both parts being in full oil production. From a geological point of view, Moreni forms a part of the sub-Carpathian zone Tzintea-Bacioi-Moreni-Gura-Ocnitzi, a zone which has a length of about 30 kilometres, and which is characterised by the piercing of the pliocenic strata by the miocenic salifere. The Moreni district is formed of an anticlinal, extending in a direction east 20° north, of a symmetrical structure with a roof formed of dacian and levantine strata, which on the southern slope, although well developed, are very much folded and dislocated, which gives them the appearance of being placed there transgressively above the salifere; on the northern slope they are less developed, but more regular, and are placed normally above the pontic and the meotic formations.

This tectonic difference has caused a variation in the productivity of the two slopes of the anticlinal, which is of great importance from both theoretical and practical points of view. On the southern slope petroleum lies in porous strata of the dacian and levantine formations, which could have been fecundated by the saliferous precisely owing to their transgression. On the northern slope, on the contrary, the same strata are unproductive owing to the normal development of the whole of the pliocene formation, which has prevented the superior dacian and levantine strata coming into direct contact with the fecund formation of the salifere. Owing to such tectonical divergency, an opinion of the sterility of the northern slope has for some considerable time been the prevailing one, but borings at Bana have soon proved that there was oil, but only at points where the strata of the superior pliocene were in a condition to be fecundated with oil and to retain it. At certain points, and in the west of the Bana district specially, the extensive development of the pontic has induced the producers to abandon their work there, but recently they have succeeded in encountering the meotic and obtaining powerful eruptions of crude oil.

The merit of having discovered the petroliferous nature of this district belongs to engineer C. R. Mircea, and the first well was bored there in February, 1904, on the bed of the river, at Stavropoleos, and oil was struck in August of the same year at a depth of 235 metres, when violent eruptions for the first time manifested the great wealth of the petroliferous strata at Moreni. Owing to the extensive works in the district of the Astra-Romana and of the Romana-Americana, the Moreni district has since been very extensively developed. Numerous wells were bored there, exploitations extended farther south, until in 1912 the Steaua-Romana struck the most southern well, situated on the shore of Tzuicani.

The sand strata at Moreni contain water, and therefore present great difficulties for boring, the pipes being often caught in the sand and even bent and distorted, and great attention has to be paid in order to avoid the necessity of costly renewals of pipes and casings. Especially difficult are the conglomerations of gravel, at a minimum depth of 80 to 100 metres.

Generally, boring presents more difficulties on the southern slope of the anticlinal Moreni-Stavropoleos, where the strata are more dislocated than at Bana, where they are more normal.

The petroliferous district of Moreni is at present the most important productive centre in the country. The production has from its beginning, ten years ago, steadily developed, as can be seen from the following table:—

| At Stavropoleos only— | Tons. |
|---|---|
| 1904 | 4,349 |
| 1905 | 47,243 |
| 1906 | 162,806 |
| 1907 | 292,147 |
| 1908 | 337,763 |
| 1909 | 369,784 |
| At Stavropoleos, Tzuicani and Bana— | |
| 1910 | 438,475 |
| 1911 | 585,254 |
| 1912 | 876,414 |
| 1913 | 981,953 |

Thus a production of 1,000,000 tons, or 54 per cent. of the total oil yield of the country, has been reached in 1913.

The systems of boring at Moreni are:—

(1) The Canadian system, which is most in use.

(2) The cable system, adapted to the Canadian, is used with great success by the Astra-Romana and the Colombia. It is very favourable for the Moreni fields, and is being more and more introduced there.

(3) The Pennsylvanian system, applied by the Romana-Americana.

(4) The water-flush system. It is very difficult to traverse the strata of sand and gravel by this system.

(5) The rotary system (with thick mud). This has given good results to the Astra-Romana, and it will no doubt be well introduced at Moreni.

Steam only is used at Stavropoleos as motor power, and in no cases benzine or gas motors, and very few electric motors. Gas is very abundant from almost all the wells, and it is capted by the Astra-Romana and Romana-Americana and used as fuel under boilers. At Stavropolcos the Astra-Romana and Romana-Americana have very extensive and well-kept workshops for repairs.

The question of isolating waters is of great importance at Stavropolcos, and several wells bored at the beginning of the exploitation of this field had to be entirely abandoned owing to the waters not having been shut off. Isolation of waters is easy at Moreni, as the oil strata there are covered with strata of clay, in which water can be perfectly well isolated simply by pressing the shoe of the hermetic column into a conical hole made in the ground. Large waters must be isolated above the first petroleum stratum, which lies at a depth varying from 150 to 250 metres. Below this stratum the chances of a good isolation are very small, as the clayish strata there are very much dislocated, and therefore less capable of forming an impermeable roof. The waters which are encountered under this stratum can be isolated separately in the very strata in which they are found, or at a height of over 30 metres above the petroleum deposit. Isolation of waters in the Bana district, which is, as already mentioned, of a special tectonical structure, must be carried out above the yellow, sulphur-smelling clayish stratum of the meotic, immediately preceding, by 25 to 40 metres, the oil stratum.

Stavropolcos oil has a gravity of 0·850 to 0·900 ; that from well 1 Colombia (which was spouting for two years, and yielded 400,000 tons) has a gravity of 0·855 to 0·865 ; the crude oil from well 1 Steaua-Romana at Tzuicani has a gravity of 0·900.

Special attention must be paid to the fire danger in this field due to the abundant gas emanating from the producing, and especially spouting, wells, and often causing fires, which destroy a large number of wells and paralyse for some considerable time the activity on the fields, and thus reducing the production. Large installations for capping the gases have been erected on the fields, and the capped gas is now utilised as fuel under the boilers. Special safety measures have also been organised to prevent the possibility of fires and to enable the producers to extinguish such at the very moment they break out.

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## THE BURMAH OIL COMPANY, LTD.

At a meeting of directors, held on Wednesday, it was resolved (subject to final audit), in addition to having placed to general reserve £220,000, being amount applied in redemption of debenture stock, to recommend that the undernoted final dividends and bonus for the year 1913 be paid on June 9th, to shareholders registered prior to 13th inst. (the date of the closing of the books), and that the sum of £74,612. 15s. 10d., be carried forward.

(1) On the first preference shares of £1 each, 7½d. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), under deduction of income tax at 1s. 2d. in the £.

(2) On the second preference shares of £10 each, 6s. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), under deduction of income tax at 1s. 2d in the £.

(3) On the ordinary shares of £1 each (a) 1s. 6d. per share (equivalent to 15 per cent. per annum from June 30th to December 31st, 1913), free of income tax, making, with the interim dividend paid in November last, 15 per cent. for the year ; also, (b) a bonus, free of income tax, of 2s. 6d. per share (equivalent to a further 12½ per cent. per annum).

The profit for the year amounts to £1,363,389. 2s. 3d., out of which the following allocations have been made by the directors :—Depreciation, £440,642. 0s. 8d. ; fields reserve, £80 000 ; insurance, £20,000.

The whole of the debenture stock having been paid off, the £180,000 standing at debenture stock redemption account has been transferred to general reserve.

## AMERICAN PETROLEUM EXPORTS.

### Details for March.

According to the official publication of th Washington Bureau of Statistics, the exports o petroleum from America from the various ports durin March were as under :—

| | Gallons. | Values. |
|---|---|---|
| Crude— | | |
| New York | 3,350,010 | $305,084 |
| New Orleans | 1,249,720 | 169,032 |
| Sabine | 122,034 | 9,411 |
| Arizona | 1,993,674 | 50,566 |
| Washington | 316,901 | 6,053 |
| Michigan | 580,505 | 21,729 |
| Totals | 7,612,844 | 401,758 |
| Totals, March, 1913 | 13,317,277 | 541,553 |
| Illuminating— | | |
| Maryland | 40,918 | 4,438 |
| New York | 35,718,037 | 3,025,571 |
| Philadelphia | 10,915.129 | 733,669 |
| New Orleans | 6,580,584 | 369,921 |
| Sabine | 9,026,513 | 512,144 |
| Arizona | 65,065 | 12,623 |
| San Francisco | 14,870,596 | 695,270 |
| Southern California | 1,020 | 182 |
| Washington | 1,627 | 311 |
| Buffalo | 32,781 | 3,755 |
| Dakota | 96,547 | 4,075 |
| Michigan | 118,141 | 6,737 |
| Totals | 77,466,958 | 5,373,696 |
| Totals, March, 1913 | 72,198,375 | 4,461,871 |
| Lubricating and Paraffin— | | |
| Maryland | 1,067,326 | 147,031 |
| New York | 11,551,984 | 1,566,785 |
| Philadelphia | 2,385,531 | 334,728 |
| Galveston | 11,250 | 3,000 |
| New Orleans | 376,121 | 118,872 |
| Sabine | 25,471 | 5,095 |
| Arizona | 9,593 | 3,393 |
| San Francisco | 222,257 | 22,645 |
| Southern California | 353 | 121 |
| Washington | 5,729 | 2,785 |
| Buffalo | 296,175 | 35,705 |
| Dakota | 57,177 | 8,621 |
| Michigan | 99,557 | 9,102 |
| Totals | 16,111,524 | 2,257,889 |
| Totals, March, 1913 | 21,522,307 | 2,952,035 |
| Residuum, Gas Oil and Fuel Oil, etc.— | | |
| Maryland | 487 | 139 |
| New York | 2,927,771 | 134,934 |
| Philadelphia | 1,298,679 | 51,947 |
| New Orleans | 1,226,378 | 45,166 |
| Sabine | 17,549,977 | 586,659 |
| San Francisco | 29,725,848 | 499,421 |
| Southern California | 4,588,044 | 71,817 |
| Buffalo | 213,974 | 8,434 |
| Dakota | 96,392 | 2,884 |
| Michigan | 335,666 | 14,703 |
| Totals | 57,963,216 | 1,416,004 |
| Totals, March, 1913 | 24,311,210 | 598,760 |
| Naphthas, Gasoline, etc.— | | |
| Maryland | 2,953 | 411 |
| New York | 10,615,796 | 1,592,659 |
| Philadelphia | 1,163,802 | 155,535 |
| New Orleans | 122,566 | 10,844 |
| Sabine | 100,600 | 16,105 |
| Arizona | 10.728 | 2,789 |
| San Francisco | 219,440 | 25.093 |
| Southern California | 630 | 161 |
| Washington | 90,038 | 17,230 |
| Buffalo | 557,353 | 56,154 |
| Dakota | 266,408 | 28,206 |
| Michigan | 215,326 | 26,380 |
| Totals | 13,365,640 | 1,340,567 |
| Totals, March, 1913 | 13,853,235 | 2,041,020 |

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## GERMAN PETROLEUM TRADE DURING THE FIRST QUARTER.

The imports of petroleum products into Germany during the first quarter of the year, as compared with the corresponding period of 1913, were as under :—

| | 1st quarter, 1914. Tons. | 1st quarter, 1913. Tons. |
|---|---|---|
| Kerosene | 243,179 | 251,130 |
| Crude oil | 127 | 366 |
| Heavy benzine | 20,139 | 17,865 |
| Crude benzine | 36,632 | 33,867 |
| Lubricating oils | 63,697 | 61,005 |
| Light mineral oils | 1,912 | 2,506 |
| Residuals | 2,308 | 3,435 |

As will be seen from the above table, imports of kerosene have diminished, while those of benzine and lubricating oils have increased. The origin of the kerosene imported is shown in the following table :—

| | 1st quarter, 1914. Tons. | 1st quarter, 1913. Tons. |
|---|---|---|
| United States of North America | 190,897 | 197,165 |
| Austria - Hungary | 37,548 | 44,091 |
| Roumania | 10,919 | 4,874 |
| Russia | 3,769 | 4,936 |

The origin of the imported crude benzine is shown in the following table :—

| | 1st quarter, 1914. Tons. | 1st quarter, 1913. Tons. |
|---|---|---|
| Roumania | 20,379 | 12,549 |
| Dutch Indies | 6,468 | 4,626 |
| Russia | 4,859 | 6,316 |
| United States of America | 3,552 | 8,215 |
| Austria-Hungary | 1,328 | 2,057 |

The above table shows that Roumania has passed into the first rank as regards the importation of crude benzine. The imports of heavy benzine from various countries are shown in the following details :—

| | 1st quarter, 1914. Tons. | 1st quarter, 1913. Tons. |
|---|---|---|
| Dutch Indies | 8,976 | 5,751 |
| Austria - Hungary | 4,644 | 5,787 |
| Roumania | 4,167 | 2,290 |
| British India | 1,460 | 924 |
| Russia | 510 | 2,367 |
| United States of America | 129 | 613 |

## THE BROXBURN OIL COMPANY, LTD.

### Directors' Report.

The report of the directors of the Broxburn Oil Company, Ltd., which will be presented at the 37th annual general meeting of the company, to be held next Wednesday, shows that after paying all current charges, the balance at the credit of profit and loss account (including £7,674. 9s. 2d. brought forward from the previous year) is £64,720. 4s. 7d., and the directors recommend that this sum be disposed of as follows :—

(1) In writing off the usual depreciation of 5 per cent. on the net balance of capital expenditure as at March 31st, 1913, £15,665. 9s. 6d. (2) In placing to credit of retort renewal account, £15,000. (3) In payment of a dividend at the rate of 6 per cent. on the preference shares of the company, £6,000. (4) In payment of a dividend at the rate of 10 per cent. on the ordinary shares of the company, free of income tax, £19,975. (5) In carrying forward a balance of £8,079. 15s. 1d. Total, £64,720. 4s. 7d.

The above dividends to be payable in equal proportions on June 4th and December 4th next.

The prices of products generally throughout the year have been good; but they have recently undergone considerable reductions. Stocks in hand and in process of manufacture have consequently been taken into the balance sheet at reduced valuations. Costs have been exceptionally high during the year owing to increase in wages and to the high price of coal and other materials. The mines and works belonging to the company have all been maintained in good order and condition. The risks arising out of the Employers' Liability and Workmen's Compensation Acts continue to be covered by insurance. The directors who fall to retire at this time are Mr. John Watson Stuart and Mr. James Wood, and, being eligible, they offer themselves for re-election.

* * *

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## OCEAN PROPULSION BY OIL MOTORS.

### The Motor Vessel "Arum."

This cargo motor vessel is one of the first of large size constructed in this country which has been built by Messrs. Swan, Hunter & Wigham Richardson, Ltd., of Neptune Works, Newcastle-on-Tyne, to the order of the Flower Motor Ship Company, Ltd., managers, Messrs. M. Samuel & Co., London, and was successfully tried at sea on Thursday week, when a mean speed of 10¾ knots was attained.

The vessel will carry nearly 6,000 tons deadweight. The pumping arrangements are very complete. She has complete gear for handling cargo, including eight steam winches. Oil fuel is carried in all double-bottom tanks and also in fore and after peaks, with special pumping arrangements.

The vessel is of the following dimensions :—Length b.p., 350 ft. ; breadth moulded, 47 ft. ; depth, 27 ft. ; and she will have a mean draft of about 21 ft. 6 in., and spacious 'tween decks, 8 ft. high, available for the pilgrim traffic and for military transport. The vessel is fitted with twin-screw Diesel motors of the Polar type, working on the two-cycle principle, with four working cylinders on each motor, and developing 1,150 b.h.p., built by Messrs. Swan, Hunter & Wigham Richardson, and possessing many special features of detailed improvements in design. Two ample-powered donkey boilers are fitted for supplying steam for the deck machinery and for the steering gear and electric light, and are arranged to burn coal and oil fuel and also to work economically at sea by the exhaust gases from the main propelling motors.

The "Arum" is built to Lloyd's highest class, and has Suez Canal certificate, and both hull and machinery are constructed under the supervision of Messrs. Flannery, Baggallay & Johnson, Ltd.

## CALIFORNIAN PETROLEUM PRODUCTION.

### A Record Output for March.

The total output of crude oil from the Californian fields during March amounted to 8,884,321 barrels—the figures constituting a record. This is a daily average of 286,591 barrels, about 2,500 barrels in excess of the highest previous figures, which were recorded in February, but that being a short month brought the totals down.

Nearly seven-eighths of the entire State's production came from the Valley fields, all of them showing gains over the previous month. The Sunset-Midway heads the list with over 4,000,000 barrels. One well in this field—the Record Oil Company's No. 3—produced at the rate of 6,000 barrels a day through the entire month of March. The Sunset-Midway field is the sword of Damocles hanging over the heads of the producers, and no one can tell, says the special correspondent of the *Oil Paint and Drug Reporter*, when another big one will be brought in or one that is quiescent will break out again. The other fields are fairly well known, with the exception perhaps of the La Habra Valley, where a gusher is likely to be brought in at any time. The other fields of the State furnished their usual quota of oil, little change being noted in any.

There was a total of 5,899 wells on the producing list in March, which was only five more than the previous month. The number of producing wells shut down on March 31st was 1,529.

The deliveries for the month, as noted above, broke all previous records, the total reaching 8,833,169 barrels, or a daily average of 284,960 barrels. The previous high-water mark in deliveries was in February, when a daily average was maintained of 263,729 barrels, or 21,000 barrels less than in March. So while production in March gained 2,500 barrels a day, the deliveries increased 21,000 barrels. This brings the surplus down to a total for the month of 50,552 barrels, a daily average of only 1,631 barrels.

In perusing the detailed statistics, it should be noted that the Belridge and Lost Hills districts are reported jointly, the developments in these fields having been carried to a point where the territory practically joins, and they will hereafter be reported together, and the McKettrick figures will apply only to the old McKettrick belt. The Fullerton and Whittier districts, which include the La Habra Valley and Coyote Hills, will also hereafter be reported under one head, as they also have been moulded into one by field developments. It will also be noted the Newhall field has been merged with Ventura county for the reason that the Newhall pool is simply a continuation of several of the other Ventura pools, and lies on the county border line closer to them than to any other field.

The following shows the wells producing and the output of the fields as they will hereafter be grouped :—

| Field. | Producing Wells. | Production Barrels. |
|---|---|---|
| Valley— | | |
| Sunset-Midway .. .. .. | 1,262 | 4,399,287 |
| Coalinga.. .. .. .. | 844 | 1,354,018 |
| Kern River .. .. .. | 1,382 | 611,165 |
| McKettrick .. .. .. | 266 | 332,940 |
| Lost Hills-Belridge .. .. | 194 | 416,764 |
| Coast— | | |
| Santa Maria .. .. .. | 187 | 270,524 |
| Lompoc .. .. .. | 35 | 102,251 |
| Summerland .. .. .. | 122 | 4,712 |
| Watsonville .. .. .. | 5 | 2,325 |
| South— | | |
| Fullerton-Whittier .. .. | 463 | 1,079,265 |
| Salt Lake-Los Angeles .. | 682 | 220,844 |
| Ventura county-Newhall .. | 403 | 88,226 |
| Puente .. .. .. .. | 54 | 2,000 |
| Totals.. .. .. .. | 5,899 | 8,884,321 |

| | Barrels. |
|---|---|
| Daily average production .. .. | 286,591 |
| Shipments for March .. .. .. | 8,833,769 |
| Daily average shipments .. .. | 284,960 |
| Total surplus .. .. .. .. | 50,552 |
| Daily average surplus .. .. .. | 1,631 |

**Messrs. Pitoeff & Co.**—A general meeting of this company has recently taken place, at which it was decided to increase the capital of the company from 3,000,000 roubles to 18,000,000 roubles, and also to acquire eighteen petroliferous plots, of an area of 66 dessiatines, on the Apsheron Peninsula, now owned by Avan-Jusvasheff, at the price of 10,000,000 roubles in the shares of the company.

## THE NORTH CAUCASIAN OILFIELDS, LTD.

### A Satisfactory Report.

THE report of the North Caucasian Oilfields, Ltd., for the year 1913, to be submitted to the meeting next Wednesday, states that the profit for the year, after providing for all Grosny and London expenses, and interest and royalty on debentures, amounts to £249,199, to which must be added the sum brought forward from last year £406, making together £249,605. It is proposed to place to credit of depreciation reserve account the sum of £77,358, leaving a balance of £172,247, out of which dividends have been paid (income tax deducted) :—On 78,000 preference shares of £1 each at 7 per cent. for the year and an interim dividend on the ordinary shares at 6d. per share. It is now proposed to pay on the ordinary shares a final dividend for the year of 2s. per share (income tax to be deducted), leaving a balance of £43,072, out of which the Russian taxes, estimated at about £35,383, will have to be paid. The total of debentures outstanding at January 13th amounted to £87,820. Since that time, under the terms of issue, 8,295 debentures have been surrendered, in exchange for which 165,900 ordinary shares of 10s. each, credited as fully-paid, have been allotted, which shares rank *pari passu* with those previously issued. The total of debentures outstanding at this date is therefore £4,870. During the year 500,000 ordinary shares have been taken up, as to 100,000 by the shareholders, and as to the remainder under options granted at the time of the increase and consolidation of the capital. This issue has provided the company with substantial working capital enabling the directors to carry out Mr. Macgarvey's large drilling programme. In the report for 1912 the shareholders were notified that the company had acquired 280 acres of new territory to the south-east of Grosny. Three wells have been completed on these plots, and the result fully justifies the original views as to the value of this portion of the company's territory. Three further wells are now in course of drilling and preparations for seven additional wells are in active progress. A formal resolution, required in Russia in connection with the transfer of this territory, is set out in the notice convening the meeting. On the old plots there are thirty-three producing wells, from which up to now the bulk of the company's production has been obtained. A further twenty-two wells are being drilled and one deepened, and as a number of these wells are nearing completion, an early increase in production may be looked for. The total sales of crude oil for the year 1913 amounted to 8,517,369 poods, and the average net price realised was 40·72 copecs, showing an increase in sales of 6,580,000 poods, and an increase in the average price obtained for the oil over that for the previous year of nearly 5 copecs per pood. The net production for the first three months of the current year has amounted to 5,500,000 poods. The balance sheet as at 13th January, 1914 [31st December (o.s), 1913], is as under :—

| *Dr.* | | | | £ | *s.* | *d.* | £ | *s.* | *d.* |
|---|---|---|---|---|---|---|---|---|---|
| To SHARE CAPITAL AUTHORISED :— | | | | | | | | | |
| 78,000 7 per cent. Preference Shares of £1 each .. .. | | | | 78,000 | 0 | 0 | | | |
| 1,344,000 Ordinary Shares of 10s. each .. .. .. | | | | 672,000 | 0 | 0 | | | |
| ,, SHARE CAPITAL ISSUED :— | | | | £750,000 | 0 | 0 | | | |
| 78,000 Preference Shares of £1 each, fully paid .. .. | | | | 78,000 | 0 | 0 | | | |
| 918,360 Ordinary Shares of 10s. each, fully paid .. | | | | 459,180 | 0 | 0 | 537,180 | 0 | 0 |
| ,, 6 PER CENT. DEBENTURES :— | | | | | | | | | |
| 10,000 Debentures of £10 each | | | | 100,000 | 0 | 0 | | | |
| *Less* 1,218 Debentures converted into Ordinary Shares | | | | 12,180 | 0 | 0 | 87,820 | 0 | 0 |
| ,, PREMIUM RESERVE ACCOUNT— | | | | | | | | | |
| Premium on Shares .. .. | | | | 62,536 | 0 | 0 | | | |
| *Less* New Issue Expenses .. | | | | 13,553 | 7 | 10 | 48,982 | 12 | 2 |
| ,, DEBENTURE INTEREST AND ROYALTY ACCRUED .. .. | | | | | | | 2,366 | 16 | 2 |
| ,, SUNDRY CREDITORS :— | | | | | | | | | |
| In Russia, including Taxes (as under) .. .. .. | | | | 105,469 | 9 | 4 | | | |
| For goods in transit (per contra) | | | | 24,532 | 18 | 2 | | | |
| In London .. .. .. | | | | 12,392 | 2 | 6 | 142,394 | 10 | 0 |
| ,, UNCLAIMED DIVIDENDS .. | | | | | | | 26 | 9 | 8 |
| ,, PROFIT AND LOSS ACCOUNT— | | | | | | | | | |
| Balance as per last Account .. | | | | 5,865 | 18 | 6 | | | |
| *Less* Dividend paid on Preference Shares for the year 1912 | | | | 5,460 | 0 | 0 | | | |
| *Add* Profit for the year 1913 .. | 249,199 | 9 | 2 | 405 | 18 | 6 | | | |
| *Less* Depreciation, Reserve (£77,357. 15s. 4d.), Russian Taxes (estimated at £35,383.) .. | 112,740 | 15 | 4 | 136,458 | 13 | 10 | | | |
| | | | | 136,864 | 12 | 4 | | | |
| *Less* Interim Dividend on Preference Shares for the first half of 1913 .. | 2,730 | 0 | 0 | | | | | | |
| Interim Dividend on Ordinary Shares | 15,289 | 10 | 0 | 18,019 | 10 | 0 | 118.845 | 2 | 4 |
| | | | | | | | £937,615 | 10 | 4 |

| *Cr.* | £ | *s.* | *d.* | £ | *s.* | *d.* |
|---|---|---|---|---|---|---|
| BY CAPITAL EXPENDITURE IN RUSSIA— | | | | | | |
| Lands .. .. .. .. | 111,563 | 15 | 7 | | | |
| Wells .. .. .. .. | 288,924 | 4 | 3 | | | |
| Buildings .. .. .. | 35,183 | 7 | 4 | | | |
| Reservoirs .. .. .. | 11,293 | 10 | 9 | | | |
| Pipelines .. .. .. | 9,480 | 13 | 6 | | | |
| Electric Installation .. .. | 2,704 | 16 | 7 | | | |
| Natural Gas Installation .. | 7,044 | 18 | 1 | | | |
| Boilers .. .. .. .. | 17,603 | 13 | 0 | | | |
| Steam and Water Pipes .. | 14,388 | 5 | 8 | | | |
| Boring Instruments .. .. | 41,400 | 13 | 4 | | | |
| Machines and Pumps .. | 18,806 | 0 | 2 | | | |
| Wolski Patent .. .. | 4,754 | 19 | 6 | | | |
| Boiler Shop .. .. .. | 10,021 | 10 | 4 | | | |
| Furniture and Sundries .. | 7,948 | 9 | 7 | | | |
| Berekei Expenditure .. .. | 36,330 | 14 | 2 | | | |
| | 617,449 | 11 | 10 | | | |
| *Less* Depreciation Reserve .. | 136,488 | 3 | 9 | 480,961 | 8 | 1 |
| ,, STOCK OF MATERIALS, STORES, AND UNFINISHED ARTICLES IN WORKSHOPS .. .. .. | | | | 117,972 | 13 | 10 |
| ,, GOODS IN TRANSIT (per contra) | | | | 24,532 | 18 | 2 |
| ,, STOCK OF OIL .. .. .. | | | | 8,656 | 18 | 6 |
| ,, SUNDRY DEBTORS AND BILLS RECEIVABLE .. .. .. | | | | 81,413 | 5 | 4 |
| ,, CASH AT BANK AND IN HAND .. | | | | 50,743 | 4 | 5 |
| ,, LONDON ACCOUNTS— | | | | | | |
| Sundry Debtors .. .. | | | | 1,693 | 16 | 1 |
| Furniture .. .. .. | | | | 90 | 1 | 4 |
| Cash on Deposit .. .. | 170,000 | 0 | 0 | | | |
| Cash at Bank and in hand .. | 1,551 | 4 | 7 | 171,551 | 4 | 7 |
| | | | | £937,615 | 10 | 4 |

FRANCIS ALLEN, } *Directors.*
REGINALD MACLEOD, }

W. A. TURNER, *Secretary.*

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The new Lock Entrance, which is 1,000 ft. long, by 100 ft. broad, and the largest in the world, will be opened in about six months. The dredging of the deep water channel from the sea is in progress.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

May 15th, 1914.

There are no further alterations to report in the prices of Refined Petroleum, which remain as follows :—Russian, 7¼d. ; American, 7½d.; American Water White, 8½d.; Roumanian, 7d. ; Galician, 7d.

### LUBRICATING OILS.

There are no changes in the current quotations, which are :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The market price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 70s. per ton, in bulk, ex wharf.

### GAS OIL

is quoted 3¼d. per gallon, in bulk, ex wharf.

### MOTOR SPIRIT.

The retail prices in London are for the best quality 1s. 9d. per gallon, and for the second quality 1s. 7d. per gallon.

### TURPENTINE.

American, spot, 31s. 10½d. ; May, 31s 10½d. ; June/August, 32s. 3d. ; September/December, 33s. ; January/April, 34s.

## LIVERPOOL.

May 14th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, April 12th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., " ... | 5 | 12 | 2 | " |
| Chester Brand, 75 deg., Abel " ... | 5 | 2 | 2 | " |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | " |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | " |
| Tiger Brand in tins, 125 deg., American ... | 4 | 15 | 2 | " |
| White Camelia Brand in tins, 125 deg. ... | 4 | 6 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 6 | 0 | " |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 12 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 6 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 14 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 8 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 12 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 1 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 9 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 0 |
| " Firefly, per case of two tins ... ... ... | 5 | 1 | 0 |
| " Chukker, per two tins ... ... ... ... | 4 | 6 | 0 |
| " " per 8 gallons ... ... ... ... | 3 | 12 | 0 |
| " Victoria, per two tins ... ... ... ... | 3 | 11 | 6 |
| " " per 8 gallons ... ... ... ... | 3 | 1 | 6 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| " " " 2nd quality ... ... ... | 0 | 3 | 6 |
| " Candles, per pound ... ... ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, May 14th.

Refined, in cases, is still quoted at 11·10 ; Standard White, 8·60 ; Credit balances, 2·40.

PHILADELPHIA, May 14th.

Standard White is quoted at 8·60.

## GERMANY.

HAMBURG, May 13th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## RUSSIA.

BAKU, May 12th.

The tendency of benzine is lower, that of gas oil and lubricating oils steady. Crude oil is quoted at 37–37¼ copecs per pood spot. Kerosene, 46–46½ copecs. Residuals, 35–35¾ copecs.

## ROUMANIA.

May 12th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·40 |
| " " " | Moreni ... | 7·50–8·00 |
| " " " | Tzintea ... | 6·00–7·00 |
| " " " | Policiori... | 6·00 |
| " " " | Bordeni ... | 9·25–9·50 |
| " " " | Bana ... | 10·50 |
| " " " | Baicoi ... | 8·00–8·50 |
| Paraffin ... ... ... ... | ... | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| " sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| " sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| " sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 7·50 |

## AUSTRIA.

May 12th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date May 14th, as follows :—

The market is very depressed and prices are easier. Makers quote to-day :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾ × 14 | 124 sheets | 110 lbs. ... | 13/– | per box. |
| 1c | 20 × 10 | 225 " | 156 " ... | 18/3 | " |

F.o.b. Swansea. Tin lining and iron hooping extra.

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

**Specially prepared for this Journal by the Customs House.**

FOR THE WEEK ENDED MAY 11TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| May. | LONDON— | | | |
| 5 | Langley, Smith & Co. | Lub. | 2,270 | New York |
| 5 | Anglo-American Oil Co. | Fuel | 576,680 | Kustendje |
| 5 | " " | " | 200 | " |
| 5 | " " | Lamp | 210 | " |
| 6 | Mordaunt Bros. | Lub. | 9,200 | New York |
| 6 | J. Thompson... | " | 2,850 | " |
| 6 | Port Authority | " | 3,910 | Hamburg |
| 6 | Asiatic Petroleum Co. | Benzine | 5,000 | Rotterdam |
| 7 | Port Authority | Lub. | 1,000 | Hamburg |
| 7 | Leach & Co. | " | 480 | Ghent |
| 7 | A. Duckham & Co. | " | 480 | Antwerp |
| 7 | Mercantile Lighterage Co. | " | 15,760 | New York |
| 7 | R. T. Lucas & Co. | " | 500 | " |
| 7 | Anglo-American Oil Co. | " | 16,000 | " |
| 7 | Vacuum Oil Co. | " | 7,880 | " |
| 8 | " | " | 800 | Hamburg |
| 8 | Barrett, Tagant & Gotts | " | 400 | Philadel. |
| 9 | Port Authority | " | 2,880 | Hamburg |
| 9 | " | " | 100 | " |
| 9 | Mercantile Lighterage Co. | " | 600 | New York |
| 9 | Anglo-Mexican Petroleum Products Co. | Fuel | 14,800 | P. Mexico |
| 9 | " " | Crude | 800 | " |
| 11 | Bowring Petroleum Co. | Benzine | 464,690 | " |
| 11 | " " | Lub. | 5,570 | Philadel. |
| 11 | Anglo-American Oil Co. | " | 26,000 | " |
| 11 | Bramwell, Fern & Co. | " | 7,550 | " |
| 11 | Benjamin & Co. | " | 3,190 | " |
| 11 | F. Chiesman & Co. | " | 2,190 | New York |
| 11 | Produce Brokers Co. | " | 4,800 | " |
| 11 | British and Foreign Wharf | " | 530 | Antwerp |
| 11 | Hanseatic Maritime Agency | " | 40 | Bremen |
| | LIVERPOOL— | | | |
| 16/2 | Vacuum Oil Co. | Lub. Resid. | 86,440 | Kustendje |
| 5 | White Star Line | Lub. | 2,000 | New York |
| 5 | Anglo-American Oil Co. | " | 83,120 | " |
| 5 | Huxley & Co. | " | 4,360 | " |
| 5 | Bennett's Haulage, etc., Co. | " | 6,850 | Philadel. |
| 5 | Crew, Levick & Co. | " | 400 | " |
| 5 | Vacuum Oil Co. | " | 8,150 | Stettin |
| 5 | Rowand & Co. | " | 40 | Antwerp |
| 6 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 7 | Anglo-American Oil Co. | Gas | 1,123,640 | Sabine |
| 7 | J. Light & Son | Lub. | 2,000 | New York |
| 8 | " | Lub. Gr. | 800 | Hamburg |
| 8 | Pickford's | Lub. | 120 | " |
| 8 | Vacuum Oil Co. | " | 420 | New York |
| 11 | J. T. Fletcher & Co. | " | 20,000 | Antwerp |
| | BRISTOL— | | | |
| 6 | Ford & Canning | " | 26,500 | New York |
| 6 | C. Hill & Sons | " | 24,500 | " |
| 6 | H. Pritchard & Co. | " | 5,250 | " |
| 7 | First Anglo-Russian Oil Co. | Lub. Gr. | 640 | Hamburg |
| 9 | E. Stock & Sons | " | 40 | " |
| 9 | Ford & Canning | " | 250 | " |
| 11 | Pickford's | Lub. Oil and Gr. | 150 | " |
| 11 | Colthurst & Harding | Lub. | 40 | Antwerp |
| 11 | British Petroleum Co. | Lamp | 2,207,700 | N. Orleans |
| | CARDIFF— | | | |
| 7 | Bristol Steam Navig. Co. | Lub. Gr. | 230 | Hamburg |
| | GOOLE— | | | |
| 7 | Goole Steamship Co. | Lub. | 480 | " |
| 8 | " " | " | 100 | " |
| | GRIMSBY— | | | |
| 4 | J. Sutcliffe & Son | " | 700 | Antwerp |
| | HARWICH— | | | |
| 9 | Great Eastern Railway | " | 810 | " |
| | HULL— | | | |
| 5 | Wilson's & N. E. Railway | " | 480 | Hamburg |
| 5 | " " | " | 3,880 | Antwerp |
| 7 | " " | " | 1,400 | Hamburg |
| 7 | " " | " | 1,400 | Antwerp |
| May. | HULL— | | | |
| 7 | W. Gilyott & Co. | Lub. | 10,680 | New York |
| 7 | T. Wilson, Sons & Co. | " | 12,400 | " |
| 9 | Langley, Smith & Co. | " | 1,000 | N. Orlean |
| | MANCHESTER— | | | |
| 5 | Pickford's | " | 120 | Hamburg |
| 5 | Liverpool Storage Co. | Lamp | 7,760 | Philadel. |
| 5 | Crew, Levick & Co. | " | 1,690 | " |
| 5 | " | Lub. | 7,670 | " |
| 5 | G. B. Taylor | Lub. Gr. | 910 | New York |
| 5 | Crew, Levick & Co. | Lub. | 2,650 | Philadel. |
| 7 | Diamond Lubricating Co. | Lub. Gr. | 2,690 | New York |
| 7 | Liverpool Storage Co. | " | 830 | " |
| 7 | " " | Lub. | 12,170 | " |
| 7 | Anglo-American Oil Co. | " | 274,640 | " |
| 7 | W. W. Jones, Dooly & Co. | Lub. Gr. | 5,300 | " |
| 7 | F. Leyland & Co. | Lub. | 2,000 | " |
| 9 | G. B. Taylor | Lub. Oil and Gr. | 4,100 | " |
| 9 | D. Currie & Co. | Lub. | 3,400 | Hamburg |
| 9 | British Petroleum Co. | Lamp | 733,000 | Port Arth |
| 9 | J. T. Fletcher & Co. | Lub. | 240 | Antwerp |
| | NEWCASTLE— | | | |
| 5 | P. H. Matthiessen & Co. | " | 150 | Bergen |
| 7 | " " | " | 270 | " |
| 7 | Tyne-Tees Steamship Co. | " | 2,560 | Hamburg |
| | SWANSEA— | | | |
| 9 | R. Turpin & Co. | " | 3,600 | New York |
| | GLASGOW— | | | |
| 5 | Anchor Line | " | 79,330 | " |
| 5 | " | " | 2,200 | " |
| 5 | Maclay & MacIntyre Co. | " | 4,630 | N. Orleans |
| 5 | Clyde Shipping Co. | " | 820 | Ghent |
| 6 | " | " | 3,310 | Antwerp |
| 11 | Anchor Line | " | 68,160 | New York |
| 11 | " | Lub. Gr. | 800 | " |
| | GRANTON— | | | |
| 8 | Asiatic Petroleum Co. | Benzine | 434,000 | Rotterdam |
| | GRANGEMOUTH— | | | |
| 6 | J. Rankine & Son | Lub. | 1,500 | Antwerp |
| | LEITH— | | | |
| 6 | Jas. Currie & Co. | " | 120 | Hamburg |
| 11 | G. Gibson & Co. | " | 320 | Antwerp |
| 11 | Jas. Currie & Co. | " | 30 | Bremen |
| | DUBLIN— | | | |
| 5 | P. Murphy & Co. | " | 120 | Hamburg |
| | BELFAST— | | | |
| 11 | Anglo-American Oil Co. | Fuel | 497,800 | New York |
| | ABERDEEN— | | | |
| 5 | R. C. Reid & Co. | " | 400 | Hamburg |
| | | | 6,975,670 | |

**Continental Petroleum Co.**
ANTWERP, BELGIUM.
**PETROLEUM PRODUCTS.**
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From Lloyd's

MAY 14TH, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table*:—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | San Francisco | Pisagua | L. May 7 |
| AMERICAN | Antwerp | — | Off Wight May 13 |
| APPALACHEE* | Kustendje | Avonmouth | Arr. May 10 |
| APSCHERON | Genoa | Batoum | Pd. Constantinople May 7 |
| ARAL | New Orleans | La Pallice | L. May 2 |
| ARAS | Newport | Port Arthur. | Pd. Brow Head May 8 |
| ARCA | Rangoon | Port Said | L. May 9 |
| ARTHUR VON GWINNER | Hamburg | Kustendje | Pd. Dard. May 9 |
| ASHTABULA* | Belfast | New York | L. May 12 |
| ASTRAKHAN | Tyne | Sabine | L. May 13 |
| AUREOLE | Newport | Philadelphia. | Arr. May 13 |
| AZOV | San Francisco | Payta | Arr. ab't May 4 |
| BAKU STANDARD | Portland | Philadelphia. | Arr. Barry Ap. 11. In port May 12 |
| BALAKANI □ | Manchester | New York | Pd. Eastham May 5 |
| BARNESON | San Francisco | London | L. April 24 |
| BATOUM | Sheerness | Tyne | Arr. April 19. In port May 12 |
| BAYONNE | Sabine | Malta | L. Norfolk, Va., April 28 |
| BEACON LIGHT | Tyne | Port Arthur | L. May 11 |
| BEECHWOOD | Cienfuegos | U.K. or Cont. | L. May 7 |
| BLOOMFIELD | Galveston | Spezia | L. Port Arthur April 30 |
| BORJOM | Alexandria | Batoum | L. May 5 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Sp. April 25, 1 N. 31 W. |
| BRILLIANT | Stettin | Philadelphia. | Pd. Cape Wrath May 2 |
| BRITISH SUN | Tyne | Manchester | Arr. May 12 |
| BROADMAYNE | Kustendje | Calais | Arr. May 11 |
| BUFFALO | San Francisco | Hangkow | L. April 21 |
| BULLMOUTH △ | Shanghai | Hong Kong | Arr. May 3 |
| BULYSSES △ | Novorossisk | Singapore | Pd. Perim May 12 |
| BURGERMEISTER PETERSEN | Helsingborg | Sabine | Pd. Cape Wrath May 2 |
| BUYO MARU | Rangoon | Bombay | L. April 15 |
| C. A. CANFIELD* | New Orleans | Tampico | L. Pt. Eads Ap. 19 |
| CALCUTTA (Br. Bq.) | San Francisco | Yokohama | L. April 11 |
| CAMILLO | Tyne | Port Arthur | L. May 5 |
| CAPTAIN A.F. LUCAS | — | — | T. U.S. Pacific |
| CARDIUM △ | Balek Pappan | Europe | Pd. Gib. May 12 |
| CARPATHIAN □ | Port Arthur. | Amsterdam | L. Newport News May 9 |
| CASSIS | New York | Port Said | L. St. Michaels May 8 |
| CASTOR | Cochin | Singapore | Arr. May 10 |
| CAUCASIAN □ | Grangemouth | Galveston | Pd. Beachy Head May 10 |
| CHARLES E. HARWOOD | Tampico | Sabine | Arr. April 20 |
| CHARLOIS | Tampico | Sabine | Off Wight May 12 |
| CHATHAM | Norfolk, Va. | Tampa | Arr. April 30 |
| CHESTER | Antwerp | Const'ntinople | Pd. Dard. May 12 |
| CHEYENNE | Novorossisk | London | Pd. Gib. May 12 |
| CIRCASSIAN PRINCE | — | — | T. West Coast South America |
| CITY OF EVERETT | Sabine | Boston | Arr. April 11 |
| CLAM △ | Madras | Aroe Bay | L. May 10 |
| CLEARFIELD | Taranto | Port Arthur. | L. Gib. April 26 |
| COMANCHEE | Liverpool | Sabine | Arr. April 26 |
| CONCH △ | Gemsah | Sabang | L. Aden May 6 |
| CONRAD MOHR | Bergen | New York | L. Tyne May 2 |
| CORDELIA | San Luis | Taltal | L. April 25 |
| COWRIE △ | Balek Pappan | Kinkiang | L. May 6 |
| CURRIER | Philadelphia | Puerto Padre | Pd. Delaware Breakw'r Ap. 28 |
| CYMBELINE | Tyne | Port Arthur. | Pd. Sand Key May 12 |
| CYRENA | Dunedin | Sydney | L. May 6 |
| CZAR NICOLAI II. | Batoum | Hamburg | Arr. May 5 |
| DAGHESTAN | Philadelphia. | Rouen | Pd. Lizard May 12 |
| DANUBIAN □ | Hamburg | Port Arthur. | L. Tyne May 2 |
| DAYLIGHT (Br. Bq.) | Philadelphia. | Hiogo | Cl. April 20 |
| DELAWARE* | Sunderland | Tyne | Arr. April 20. In port May 12 |
| DELPHIN | Baton Rouge | Rotterdam | Arr. May 9 |
| DERBENT | Batoum | Antwerp | Arr. May 6. In port May 12 |
| DESABLA | San Pedro | Taltal | L. April 24 |
| DEUTSCHLAND | Hamburg | Philadelphia. | Pd. Lizard May 13 |
| DIAMANT | Copenhagen | Philadelphia. | Pd. Cape Wrath May 2 |
| DONAX | Rotterdam | Malta | Pd. Dover May 9 |
| EBURNA △ | Singapore | — | Pd. Gib. May 12 |
| EDWARD L. DOHENEY | Galveston | Tampico | L. April 25 |
| EL LOBO | San Francisco | Lobitos | Arr. May 11 |
| EL SEGUNDO | Tacoma | San Francisco | Arr. April 17 |
| EL TORO | New Orleans | Campana | L. Pt. Eads Ap. 17 |
| ELAX △ | Novorossisk | Rotterdam | Arr. Mar. 30. In port May 12 |
| ELBRUZ | Tyne | Amsterdam | Arr. In port May 11 |
| ELISE MARIE | Sabine | Rotterdam | Arr. May 11 |
| ELSINORE | Antofagasta | Port San Luis | L. May 7 |
| EMANUEL NOBEL | Hamburg | Batoum | Pd. Dungeness May 2 |
| ENERGIE | Tuxpan | Baton Rouge | Arr. April 30 |
| ERIVAN | Dunkirk | Kustendje | L. May 7 |
| ESCALONA | Baltimore | — | L. May 5 |
| ESTURIA | Singapore | Saitozaki | L. May 2 |
| EUPION | New Orleans | Philadelphia. | Arr. about May 9 |
| EUPLECTELA △ | Singapore | Adelaide | L. May 10 |
| EXCELSIOR | Tyne | New York | L. May 13 |
| F. A. TAMPLIN | Puerto Mexico | London | Pd. Southend May 13 |
| FRANCE MARIE (Belgian Ship) | — | — | T. b'tw'n Tampico and Pt. Arthur |
| FUMI MARU | — | Yokohama | Arr. Apr. 5. |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In pt. Ap. 28. Laid up |
| GENESSE* | Maryport | New York | L. Liverpool May 1 |
| GEORGIAN PRINCE | Tyne | Port Arthur | Pd. Dunnet Hd. May 3 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Grangemouth | Seattle | Arr. Pt Townsend April 27 |
| HAGEN | New York | Hamburg | Arr. May 9 |
| HAINAUT (Barge) | — | — | T. between Tampico and Aransas Pass |
| HARPORT | Pisagua | San Francisco | Arr. May 2 |
| HARRY LUCKENBACH | Tampa | Baltimore | Arr. April 4 |
| HAVRE | Townsville | Singapore | Arr. April 29 |
| HELIOS | Hamburg | New York | Pd. Lizard May 9 |
| HERA | Port Arthur | Rotterdam | L. Norfolk, Va., May 5 |
| HERBERT G. WYLIE | Galveston | Tampico | Cl. April 22 |
| HERMIONE | Port Arthur. | Sheerness | L. May 8 |
| HESPERUS | Tocopilla | San Francisco | L. April 30 |
| HORLEY | New York | Baltimore | Arr. May 5 |
| HOTHAM NEWTON | Port Arthur. | Toulon | L. Newport News April 27 |
| HYRCANIA | Port Arthur | Sheerness | L. Newport News May 5 |
| ILLINOIS | New York | Port Arthur | Sp. Apr. 13, 36 m. S. Cape Romain |
| IMPEROYAL | — | — | T. R. St. Lawrence |
| IMPOCO | Leghorn | Kustendje | Pd. Dard. May 8 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | Arr. May 13 |
| J. B. AUG. KESSLER △ | Rangoon | — | Pd. Peniche May 10 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. April 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Kustendje | Arr. Marseilles May 9 |
| JUNO △ | — | Palembang | Arr. May 11 |
| JUPITER | Hamburg | New York | 20 m. S. Niton May 8 |
| KANAKUK | Bombay | San Francisco | L. April 15 |
| KASBEK | Antwerp | Batoum | Pd. Constantinople May 9 |
| KIOWA | Stettin | Batoum | 20 m. S. Lands End May 12 |
| KIYO MARU | Valparaiso | Callao | Arr. ab't May 12 |
| KOMETA | — | — | Sunk off Sidi Ferruch Ap. 26 |
| KREMLIN | Tyne | Batoum | Off Shipwash L't.-vessel May 13 |
| KURA | Penarth | Kustendje | L. May 11 |
| LA CAMPINE | Antwerp | New York | Arr. May 3 |
| LA FLANDRE | New York | Antwerp | Arr. May 8. In port May 12 |
| LA HABRE | Tyne | San Francisco | Arr. May 4 |
| LA HESBAYE | Antwerp | New York | Pd. Lizard May 12 |
| LACKAWANNA* | New York | Manchester | Arr. May 13 |
| LAMPO | Messina | Philadelphia. | Pd. Gib. April 28 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LE COQ □ | New York | Bordeaux | L. May 8 |
| LEDA | Baton Rouge | Hamburg | L. Norfolk, Va., May 1 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port April 27 |
| LUCELLUM | Portsmouth | Port Arthur. | Arr. ab't May 13 |
| LUCERNA | Port Said | Gemsah | Arr. May 11 |
| LUCIGEN | Port Victoria | Abadan | Arr. Port Said May 8 |
| LUCILINE □ | New York | Havre | L. May 6 |
| LUMEN | Marseilles | Kustendje | Arr May 10 |
| LUTETIAN □ | New York | Havre Roads | L. May 5 |
| LUX □ | Barcelona | New York | P. Gib. May 6 |
| LUZ BLANCA | Callao | San Francisco | Arr. ab't May 11 |
| MAKKAVEI | Sulina | Odessa | Arr. May 6 |
| MANNHEIM | Copenhagen | New York | Pd. Dunnet Head May 6 |
| MARGARETHA | Tyne | Kustendje | L. Mar. 12 |
| MASCONOMO | San Francisco | Shanghai | Arr. April 17 |
| MASSASOIT | Aroe Bay | Singapore | Arr. ab't May 4 |
| MEPPEN | Kustendje | Alexandria | L. May 8 |
| METEOR | Batoum | Vladivostock. | Arr. Colombo ab't May 11 |
| MEXICAN PRINCE | Shanghai | Balek Pappan | L. May 6 |
| MIJDRECHT | Braila | Hamburg | Pd. Dard. May 9 |
| MINA BREA | San Francisco | Yokohama | Arr. ab't May 11 |
| MIRA | Tyne | Port Arthur | Pd. Cape Wrath May 7 |
| MITRA △ | Rangoon | Gibraltar | L. Suez May 11 |
| MOHAWK* | Tampico | New York | Arr. April 30 |
| MOHICAN | Stockholm | Port Arthur | Pd. Sand Key ab't May 11 |
| MUREX △ | Sydney | Balek Pappan | L. May 2 |
| NARRAGANSETT | London | New York | 180 m. S.W. Brow Head May 9 |
| NATICA △ | Tyne | Malta | Off Pantelleria May 11 |
| NELSON | Port Arthur | Philadelphia. | 72 m. E. Sabine Bay April 29 |
| NEW YORK* | Baton Rouge | Rotterdam | L. May 4 |
| NIAGARA | Shanghai | San Francisco | L. May 5 |
| NORMAN BRIDGE | Tampico | Sabine | Arr. April 21 |
| OAKWOOD | London | Liverpool | Arr. Mar. 29. In port April 21 |
| OBERON | Bilbao | Port Harford | L. April 27 |
| OCEAN | Philadelphia. | Amsterdam | Arr. May 9. In port May 11 |
| OILFIELD | New Orleans | Gothenburg | L. May 6 |
| ORIFLAMME □ | Kustendje | Cette | L. May 12 |
| OSAGE | Tuxpan | Philadelphia. | Arr. May 2 |
| OTTAWA* | London | New Orleans. | Pd. Lizard May 5 |
| OURAL | Tyne | Kustendje | Pd. Dover May 9 |
| PALEMBANG △ | Abadan | Colombo | Arr. ab't May 13 |
| PATELLA △ | Hong Kong | Palembang | L. May 5 |
| PAUL PAIX | New York | Calais | Arr. Calais Roads May 11 |
| PAULA | Sabine | Dantzig | L. Norfolk. Va., May 1 |
| PAWNEE | Hamburg | Novorossisk | Arr. May 10 |
| PECTAN | Antofagasta | Port San Luis | Arr. ab't Apr. 30 |
| PENNOIL | Philadelphia. | Newport News | Cl. April 30 |
| PETROLEINE | Tyne | Philadelphia. | Arr. ab't May 9 |
| PETROLEUM | Sheerness | Portland | Arr. May 6 |
| PHOEBUS | San Francisco | Pisagua | L. April 17 |
| PINNA □ | Port Arthur. | Avonmouth | Arr. May 11. In port May 12 |
| PONUS | San Francisco | Calcutta | Arr. ab't May 1. |
| POTOMAC* | Sabine | Liverpool | Arr. May 6 |
| POWHATTAN | Singapore | Barrow | Pd. Barry Island May 13 |
| PROMETHEUS | San Francisco | Pisagua | L. May 6 |
| PRUDENTIA | Guanica | Maurer | Arr. May 11 |
| PURELIGHT | Hamburg | — | Pd. Sand Key about May 13 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | L. Mar. 28 |
| RADIOLEINE | Havre | Port Arthur. | Arr. ab't May 6 |
| RANELLA △ | Batoum | Singapore | Arr. Colombo ab't May 11 |
| RENDOVA (Br. Bq.) | New York | Seville | Arr. May 11 |
| RICHMOND | San Francisco | Seattle | L. April 19 |
| RION | Tyne | Port Arthur | Pd. Dunnet Head April 26 |
| ROCK LIGHT □ | Hamburg | Tees | Arr. Mar. 25. In port May 11 |
| ROMANY △ | Thames Haven | Kustendje | Arr. May 10 |
| ROSALIND | Port Arthur. | Sheerness | L. Norfolk, Va., April 30 |
| ROTTERDAM | Rotterdam | New York | 165 m. S.W. Brow Head May 8 |
| ROUMANIAN □ | Amsterdam | New Orleans. | Pd. Prawle Point May 5 |
| ROUM'NIAN PRINCE | — | Port Arthur | Arr. April 23 |
| RUSSIAN PRINCE | Tampico | Aransas | Arr. April 17 |
| SABINE RICKMERS | Hong Kong | Amoy | L. May 10 |
| SALAHADJI △ | Kobe | Aroe Bay | L. May 8 |
| SAMOSET | Kuchinotsu | Bombay | Arr. ab't May 6 |
| SAN ANTONIO | Rotterdam | Tuxpan | Arr. Sand Key ab't May 2 |
| SAN BERNARDO | Thames Haven | Rotterdam | Arr. Mar. 10. In port May 11 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Puerto Mexico | London | Arr. May 5. In port May 13 |
| SAN EDUARDO | Tuxpan | — | L. ab't May 6 |
| SAN FRATERNO | Southampton | Mexico | Pd. Bishops Ap. 29 In w. com. Ap. 30 |
| SAN GREGORIO | New York | Tuxpan | L. May 1 |
| SAN HILARIO | London | Puerto Mexico | Arr. May 9 |
| SAN ISIDORO | New York | Tuxpan | L. May 2 |
| SAN JERONIMO | Portsmouth | Spithead | L. May 11 |
| SAN JOAQUIN | Antofagasta | Port San Luis | Arr. April 21 |
| SAN LORENZO | New Orleans. | Pola | L. Trieste May 11 |
| SAN MELITO | Tyne | Mexico | 102 m. S. of Brow Head May 4 |
| SAN RICARDO | Borneo | Portsmouth | Pd. Gib. May 10 |
| SAN SILVESTRE | New York | Birkenhead | L. May 1 |
| SAN TIRSO | Trieste | Puerto Mexico | L. Oran Apr. 29 |
| SAN URBANO | Rio Janeiro | Tuxpan | L. May 5 |
| SAN VALERIO | Nassau | Tuxpan | L. May 9 |
| SAN WILFRIDO | New Orleans. | Norfolk, Va. | Arr. May 11 |
| SAN ZEFERINO | Norfolk, Va. | Rotterdam | Pd. Eastbourne May 12 |
| SANTA MARIA | — | Coronel | Arr. ab't May 8 |
| SANTA RITA | San Francisco | Honolulu | L. Pt. San Luis April 18 |
| SATANTA | San Francisco | Kuchinotsu | L. April 2 |
| SAXOLEINE | Philadelphia. | Blaye | Arr. off Bordeaux May 7 |
| SEBASTIAN | Kustendje | Havre | Arr. Malta Apr. 15 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port May 11 |
| SEQUOYA | San Francisco | Japan | L. March 25 |
| SERVIAN □ | London | Port Arthur | Pd. Lizard Apr. 27 |
| SHABONEE | San Francisco | Hong Kong | L. April 28 |
| SILVIA | Achar | U.K. | Pd. Perim May 12 |
| SIOUX | San Francisco | Pisagua | L. April 19 |
| SIRIUS (Ger.) | Kustendje | Vallo | Pd. Gib. May 12 |
| SOCONY | Port Arthur | New York | L. April 24 |
| SOYO MARU | Perim | Sabang | L. April 15 |
| SPLENDOR | Savona | Baton Rouge | L. May 11 |
| STAG | Liverpool | Antilla | Pd. Fastnet Ap. 30 |
| STANDARD | Galveston | Sabine | L. May 2 |
| STROMBUS △ | Sheerness | — | Pd. Lizard May 9 |
| SULTAN VAN LANGKAT △ | Tarakan | Sydney | L. May 1 |
| SUNLIGHT (Br. Bq.) | Liverpool | San Domingo | Sp. Mar. 27, 47 N. 7 W. |
| SURAM | Kustendje | Hull | Pd. Sagres May 9 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port May 12 |
| SVIET | Alexandria | Kustendje | Cl. Constantinople May 5 |
| TASCALUSAH | Calcutta | San Francisco | Arr. ab't May 7 |
| TATARRAX | Mi-ike | San Francisco | Arr. May 1 |
| TEAKWOOD | New York | Pembroke | Pd. Lizard May 11 bound W. |
| TECUMSOH | New York | Tampico | Pd. Sand Key May 1 |
| TELENA △ | Colombo | Gemsah | L. May 7 |
| TEREK | Manchester | Batoum | L. May 12 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. In port May 5 |
| TIFLIS | Tees | Braila | Arr. May 4. In port May 10 |
| TONAWANDA* | Rotterdam | Antwerp | Arr. Flushing May 12 |
| TRINCULO | Victoria, B.C. | Port San Luis | Pd. Tatoosh Ap. 27 |
| TRINIDADIAN | Tampico | Galveston | Arr. April 25 |
| TRITON | Baton Rouge | Rotterdam | L. Norfolk, Va., May 2 |
| TROCAS △ | Singapore | Fremantle | L. May 1 |
| TURBO △ | Sabang | Suez | L. Colombo May 8 |
| UNCAS | Shanghai | San Francisco | Arr. May 1 |
| VEDRA | Tyne | Sabine | Pd. Prawle Point May 9 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Tyne | Arr. Apr. 22. In port May 12 |
| VITRUVIA | Rotterdam | Novorossisk | Pd. Gib. May 7 |
| VOLCANUS △ | Palembang | Tjilatap | L. May 10 |
| VOLUTE △ | Barrow | Tyne | Arr. Apr. 1. In port May 5 |
| WABASHA | San Francisco | Shanghai | Arr. ab't May 12 |
| WANETA | Sabine | Tampico | L. April 26 |
| WAPELLO | New York | Dublin | Arr. May 12 |
| WASHINGTON | Tuxpan | Philadelphia. | Arr. May 1 |
| WEEHAWKEN | Port Arthur. | Antwerp | L. Norfolk, Va., April 30 |
| WIELDRECHT | Rotterdam | Kustendje | Pd. Gib. May 11 |
| WILLIAM F. HERRIN | — | — | T. Pac. Coast N.A. |
| WILLKOMMEN | Tyne | Philadelphia. | Pd. Dunnet Head May 3 |
| WINAMAC | Saigon | San Francisco | Arr. ab't May 13 |
| WOTAN | Hamburg | New York | Pd. Lizard Apr. 28 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

VOL. XXX. (*New Series.*) MAY 23RD, 1914. No. 618.

## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### A Week's Record Petroleum Imports.

THE imports of petroleum products received in the United Kingdom for the week ended last Monday constitute a record, amounting in the aggregate to over 15,000,000 gallons. When one recollects that the enormous total of imports received last year only represented an average of approximately 8,000,000 gallons weekly, the full significance of the present week's total will be appreciated. The imports are eloquent testimony to the continuous expansion which is being witnessed in regard to the consumption of motor spirit in this country, for nearly one-half of the week's imports are of this commodity, of which no less than 5,000,000 gallons came from the Dutch Indies. Another important fact to be noted is the receipt of 1,000,000 gallons of illuminating oil from Mexico—the first consignment to be received during the present year, while following upon the 3,000,000 gallons of American kerosene received last week, over 4,000,000 gallons have come into this country during the past few days, as well as two and a quarter million gallons of lubricating oil from the same country of origin.

◆

### The Bibi-Eibat Oil Company declares its first dividends.

IT is distinctly refreshing to peruse the report and accounts of the Bibi-Eibat Oil Company, Ltd., which concern successfully emerged last year from a scheme of reconstruction. There are several points which prominently stand out therein, and these without a doubt must place the stamp of a successful future upon the company. It has passed through a very profitable year, and after the whole of the preliminary expenses are wiped off, the directors are in a position to declare a dividend of 7½ per cent. But the solidity of the company is seen to better advantage from the balance sheet, for there cash and investments alone represent no less a sum than £112,913, while the current liabilities are under the modest sum of £2,000. It would appear, therefore, that the hopes held out for the company at its re-construction are now maturing into fact, and that the future is full of promise. The only thing now wanting to render prosperity in the future absolutely secure is the agreement of the Russian Government to the company's demands for reduced royalties upon its lands in Bibi-Eibat. The Government moves very slowly in righting this obvious injustice, for though reduced royalties were promised several years ago—long before the present company came into existence—the question is still in abeyance. The directors of the company are determined, however, that the matter shall not rest where it at present is, and so shareholders may take it for granted that the ultimate result will be to the material benefit of the company.

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### British Enterprise in California.

UNDER this heading we referred at length in our last issue to the important deal which has recently been consummated in California, whereby the controlling interest in the Union Oil Company passes to a new British organisation to be known as the British Union Oil Company. We have now received further details in connection with the subject which go to show how solid is to be the backing of the new company, which will, we learn, in all have an authorised capitalisation of £11,500,000. It is reported that Earl Grey will be intimately associated with the British Union Oil Company, Ltd., while on the directorate are to be such gentlemen as Lord Pirrie and Sir Owen Phillips. Little information is, however, leaking out concerning the new enterprise in London.

◆

### The Recent Important Developments in Maikop.

THERE can be no doubt that a decided impetus will be given to deep drilling in the north-western portion of the Maikop field during the next few months, consequent upon the significant strikes of oil which have lately been made. The REVIEW has frequently commented upon the fact that though there is indisputable evidence of the presence of crude oil in commercial quantities in the Khadijenskaia district, the locality has not in the past been given a fair trial, for, apart from the operations conducted on plot 110, then belonging to the Maikop Oil Proprietary Company, Ltd., little development work was done for a long time. Upon that particular plot, it is interesting to recall, a light oil of good quality was struck at a depth of 350 ft., while when the well was carried deeper several good oil shows were encountered at varying depths. But for a time the pessimists had their way, and it was impossible to obtain the necessary finance for Maikop developments, however promising they might have been. The Deep Drilling Company eventually commenced drilling upon plot 108, just to the north of 110, and obtained oil, while during the past week or so the welcome news has been received that the Anglo-Maikop Corporation has found oil in its well on plot 120, which immediately adjoins 108. This latter well, it should be mentioned, is to-day flowing intermittently, and yielding several hundred poods of oil daily. There is evidence, therefore, that this portion of the Maikop field, at all events, will shortly become a very much sought after venue for oil developments, for its oil contents are no longer in doubt.

## GROSNY PRODUCTION DURING APRIL.

THE output of crude oil on the Grosny fields during April amounted to 7,930,000 poods, this figure including 320,000 poods of spouted oil.

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## THE WHITSUNTIDE HOLIDAYS.

### Earlier Publication of the "Review."

OWING to the Whitsuntide holidays, the next issue of the REVIEW will go to press at midnight next Thursday and be on sale at the offices early on Friday morning. Subscribers will receive their copies by post exactly a day earlier than usual.

◆

## BAKU PRODUCTION DURING APRIL.

THE production of crude oil on the Baku fields during April amounted to 33,991,053 poods, of which 24,239,885 poods were obtained on the old areas, 6,801,294 poods on the Bibi-Eibat area, and 2,969,894 poods on the Surakhani area. Full details will appear in our next issue.

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## THE SPIES PETROLEUM COMPANY, LTD.

### A Well after being Deepened becomes a Fountain.

THE secretary of the Spies Petroleum Company, Ltd., has received a telegram from Grozny stating that well No. 1, upon plot 127 (South Baskakoff), continues to flow uninterruptedly at increased rate, having given in sixteen hours ending 7 o'clock on May 20th 26,700 poods (at the rate of about 40,000 poods per day).

LICENSEES WANTED TO OPERATE IMPORTANT PATENTS.

Licensees are required in England to take up and operate the undermentioned Patents (granted in England).

**Patent No. 14390 of 1910,**

relating to an "Improved apparatus for distilling under high vacuum oils from the petroleum tar, and the like industries"; and

**Patent No. 29145 of 1910,**

relating to "Improvements in distilling vessels."

*For descriptions of the above patents, drawings, and all other information apply to—*

**LEOPOLD SCHWEINBURG,**
**Mullnergasse 13, Vienna IX.**

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended May 16th was 111,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended May 17th was 259,740 poods, or about 4,189 tons. The total production for the year from January 14th to May 17th was 4,983,695 poods, or about 80,382 tons. The total production for the corresponding period last year was 5,246,520 poods, or about 84,621 tons. Price of crude oil at Baku is now 36 copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended May 17th was 29,128 poods, or 470 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended May 17th was 108,700 poods, or 1,752 tons.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended May 16th was 129,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended May 16th was 19,115 poods (308 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended May 16th was 6,842 poods (110 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended May 17th was 10,775 poods, or 174 tons.

BIBI-EIBAT OIL .COMPANY, LTD.—Production for week ended May 17th, 88,200 poods, or 1,423 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended May 16th, 93,212 poods, or 1,503 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The total production for week ended May 19th was 314,646 poods, or 5,075 tons. Corresponding period last year, 2,027 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended May 16th was 4,970 poods, or 80 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended May 16th was 22,173 poods (357 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended May 9th was 665 poods (11 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended May 16th was 1,680 poods, or 27 tons.

URAL CASPIAN OIL CORPORATION, LTD.—Production for the week ended May 19th, 164,400 poods, or 2,652 tons.

**GERHARD & HEY,**
**OILFIELDS SHIPPING AGENTS,**
**Great St. Thomas Apostle**
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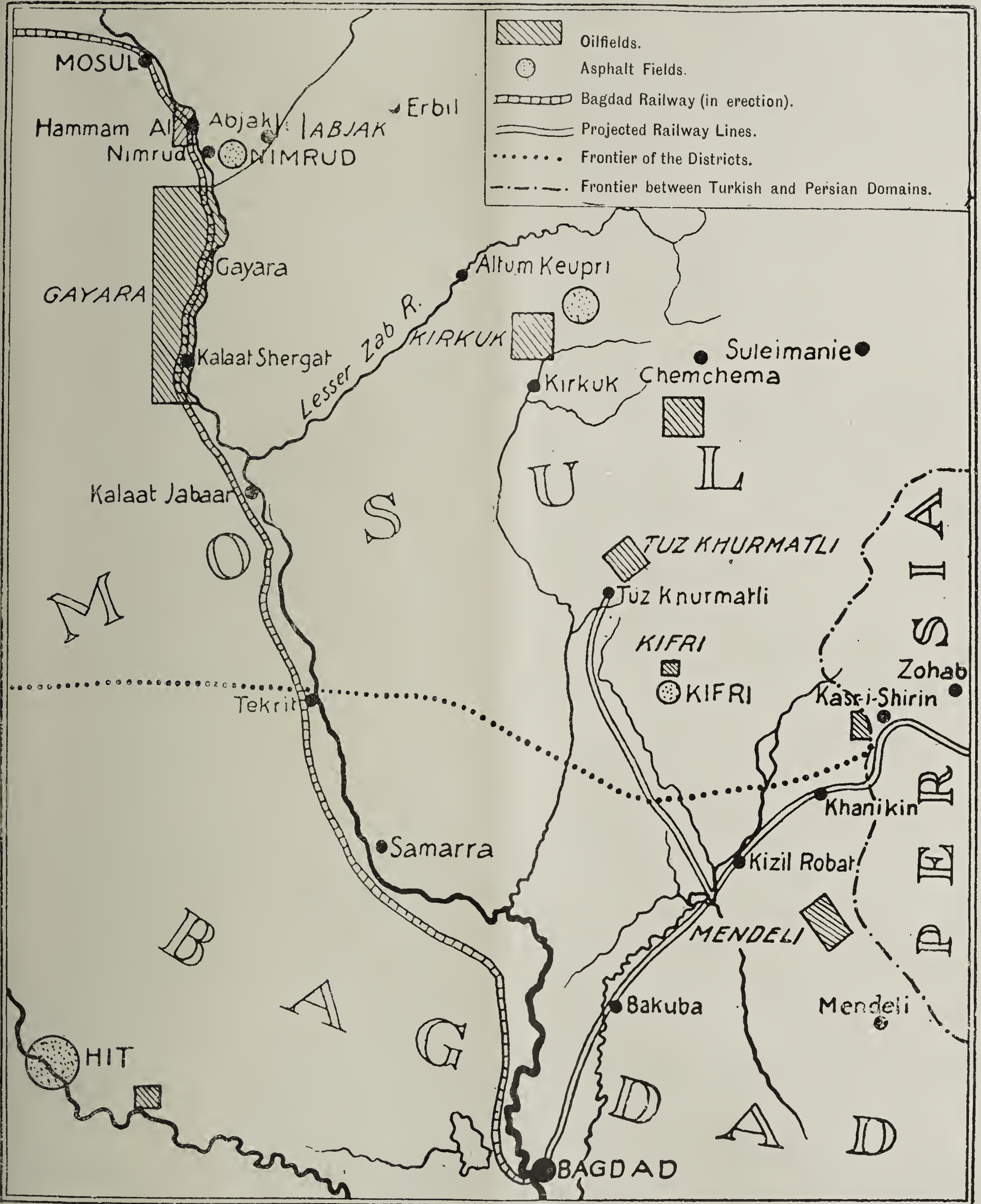
ESTABLISHED 1856.
Telephone : City 8840 (4 lines).
**LONDON, E.C.**

# THE PETROLEUM DEPOSITS OF MESOPOTAMIA.

## A SECOND BAKU IN THE MAKING.

ACCORDING to all indications, the near future will witness the opening of the extensive oilfields of Mesopotamia, which have been mentioned in Babylonian scriptures as well as in the Bible, and which in the form of asphalt contributed to the erection of the magnificent buildings of Babylon and Assyria.



The rich oil treasures of Mesopotamia will, with the aid of modern technical science and the new Bagdad railway, at last be opened for widespread use and international trade. The rôle to be played by Mesopotamian oil in the world's market may be of great magnitude and importance. The subject is also of political importance, as it is of great interest both to Germany and England, and if only the German bank which participates in the erection of the Bagdad railway line obtains concessions, the influence of Germany must necessarily increase, while since France, in recompense for the loan of their millions to Turkey, is obtaining extraordinary concessions, Germany on its side will also demand from the Porte a corresponding recompense for the money which it helped the Porte to obtain. Such recompenses will most probably take the form of petroleum concessions.

The existence of petroleum and bitumen in Mesopotamia, besides being mentioned in the Bible, has also been referred to by Herodotus and Xenophon, Strabo and Diodor, Victurio and Dio Cassius, as well as Plutarch and Rufus, and during recent times has been commented upon by the modern travellers, geologists, and geographers, who all confirmed the existence of oil deposits by their own investigations, and thus laid the ground for the economical exploitation of the same.

In his book on petroleum, Professor Hoefer has summarised the whole of his geological knowledge on Mesopotamia as far as this concerns petroleum, The most important results of Dr. Hoefer's description prove that there are in Mesopotamia, as well as in Persia, oil lines of extraordinary length, and that in the zone (1,000 kilometres in length) there are exceedingly rich oil deposits, which are not always situated close to the natural oil sources, but have to be defined by geologists.

Many attempts in the past have been made in Mesopotamia to create a modern petroleum industry, but have failed owing to the deficiency in capital, and also owing to climatic, political and social conditions as well as difficulties in regard to communication. This latter obstacle is, however, now being removed by the erection of the Bagdad railway line, which will run southwards and south-westwards from Mosul through the oil areas of Gayara, Ali-Hammam, Nimrud and Abjak.

Petroleum in Mesopotamia belongs to the tertiary formation, which here splits into gipsen and mummulitic strata. The bituminous occurrences in Mesopotamia and their continuation in south Persia have been fixed in the lower division of the gipsen strata, consisting of marl, and also in the nummulitic strata there exist covered by the limestone a very powerful zone of bituminous slates and marls. The oil lines extend from Mosul through the districts of Mosul and Bagdad in a northwest-southeast direction and continue towards south-east through the Persian frontier, directly joining the Persian oil deposits of Kir Ab, Schuschter and others, so that there can be no doubt of a direct relation one to another of the hundreds of miles of oil occurrences of Turkey and Persia.

In the 60's of the last century European capital took an interest in the Mesopotamian oil deposits—in the fields of Mendeli on the Turkish-Persian frontier—but notwithstanding very favourable geological reports, all efforts to open a petroleum industry failed owing to the political strife in Turkey during that period. In the 90's of last century the Turkish Government leased the exploitation of some fields situated at 120 kilometres north-east from Bagdad for a sum of 60,000 piastres, but soon after rescinded the lease. In 1901 there were obtained in that locality about 16 tons of petroleum a month, bringing the Government in a yearly revenue of £1,200. The oil was sold to the inhabitants of the locality.

In 1901 an English group made some successf borings at Kasr-i-Shirin on the Turkish-Persi frontier, and in 1904 the German bank sent an expe tion to Mesopotamia in order to investigate t petroleum occurrences, and the Bagdad railw promoted by the German bank obtained a concessi for the exploitation of petroleum, though the opti expired and nothing was done. At present there a rumours that a group of British and German capitalis are negotiating for concessions.

The most northern oil deposits extend from Hamma Ali, thirty-two kilometres south-east from Mosul the right shore of the Tigris. To the west of th latter deposit there extend the fields of Abjak, and the right shore of the Tigris to the west, and sou from Hammam Ali, there extends the very rich fie of Gayara, which is being traversed by the Bagdad ra way. Here there are asphalt deposits, which lie sever metres thick, and also petroleum sources of hi quality oil, distinguished by its excellent purity. T this field also belong the Defiles of El Fatha. Sout east from Abjak there is the Nimrud field, which present has not yet been touched. East from th Gayara fields on the south side of Zab there are th Kerkuk and Baba Jurgur fields, which are exploite by the natives in a very primitive way, and to the ea of these fields there is the Guil field, which is noted f its exceedingly large area, wealth in petroleum, and th high quality of the latter. Southwards from this fiel there are the sources of Kifri and Tuz Khurmatli, whic are exceedingly rich in petroleum and bitumen. To th east from Kifri on the Turkish-Persian frontier the extends the Kasr-i-Shirin field.

All the above fields are situated in the district Mosu Besides these, there are in the west of the distri Bagdad the fields Hit and Ramadi, which are very ric in asphalt, and below Hit on the river Euphrat there an extensive petroleum deposit, while finally there the celebrated area of Mendeli, situated near th Persian frontier, where twenty years ago there were i existence 30 wells south-west from the Mendeli zone.

The question of transport is of great importanc There are propositions to establish this by means barges of 300–400 tons on the Tigris, bringing the oil Bassora, where it can be loaded into tank-steamers, bu navigation on the Tigris presents great difficulties, an a pipeline would be of considerably more advantag There already exists a pipeline in Persia to Mohamera and another one from Mendeli to the Bagdad railwa could easily be constructed, and also one which woul serve the districts Khanikin and Kasr-i-Shirin.

Besides the export trade to be cultivated, Mesopotamia itself would be a large market for petroleum. A present almost all the oil is imported from America In 1911 there were imported into Bagdad 35,000 cases but since then these imports have considerably in creased, and amount to at least 90,000 to 100,000 cases year. The competition in this trade has arisen on th part of the Anglo-Persian Oil Company, which is abl to import oil direct into Turkey from Persia with ver great advantage and economy in freights. Liquid fue must play an important rôle in the future in Mesopotamia as coal and petroleum are totally deficient,

There is no doubt that in the very near future a fores of modern derricks will appear in the fields of ancien Assyria, Babylon and Chaldæa, and in a short time a extensive flourishing petroleum industry will arise there thus becoming a second Baku, which will have a extraordinary influence on the world's petroleum trade

# THE SITUATION IN MEXICO.

## Mexican Petroleum Producers' Appeal to the U.S. Government for Protection.

An important and largely attended meeting of Mexican petroleum producers was held at New York on the 7th inst., for the purpose of considering and, if thought fit, passing resolutions calling upon the United States Government for protection in view of the unsettled condition of affairs in Mexico.

Capt. J. F. Lucey (The J. F. Lucey Company) presided, and the following named companies and firms were represented :—

Adrian Petroleum Corporation, Aguada Petroleum Corporation, Amatlan (Mexico) Petroleum Syndicate, Ltd., American International Fuel & Petroleum Company, Aztec Asphalt Company, Compania de Petrolio La Carona, S.A., Cortez Oil Corporation, Christie and Anderson, Electra Oil Company, Excelsior Panuco Company, Gulf Coast Corporation, Gulf Refining Company, Head & Bushnell, Hidalgo Petroleum Company, Huasteca Petroleum Company, Idol Island Oil Company, International Petroleum Company, Inc., Inter Ocean Oil Company, Inter Ocean Transportation Company, Richmond Levering & Co., Inc., Lot 17 Company, J. F. Lucey Company, Mexican Abstract & Charter Company, Mexican Drilling & Exploration Company, Mexican Gulf Oil Company, Mexican High Grade Oil Corporation, Mexican National Oil Company, Mexican Oil Company, Mexican Oil Utilities Company, Mexican Petroleum Company, Mexican Premier Oil Company, National Petroleum Corporation, National Oil Company of Mexico, New England Fuel Oil Company, New York Mexican Oil Company, Niles Bement Pond Company, Oil Fields of Mexico Company (joint ownership S. Pearson & Sons, Ltd.), Ohio & Mississippi Oil Company, Penn-Mex Fuel Company, Panuco Fuel Oil Company, Panuco-Topila Oil Company, Petroleum Transport Company, Piedras Development Company, Petroleum Iron Works Company, Riter Conley Manufacturing Company, Smith's Oil Company, Southern Fuel & Refining Company, Soledad Company, Tamiahua Petroleum Company, Tampascas Oil Company of Mexico, Tampico Oil Company, Tampico Company, The Texas Company, Terminal Land Company, Tuxpan Petroleum Company, United States Asphalt & Refining Company, Vera Cruz Mexican Oil Syndicate ,Ltd., and the Victor Petroleum Corporation.

The following resolutions were considered and adopted :—The representatives of the companies and associations interested in the production of petroleum in the Republic of Mexico, in meeting assembled, ask the attention of the Governments and peoples of the United States and of Mexico to the following points :—

1. Within the last ten years a number of American, British, German, Mexican and other oil companies have acquired interests in the oil district of Mexico, have commenced and conducted active operations therein, and have developed a great industry.

In addition to these companies many other important concerns, such as steamship lines, companies engaged in the distribution of oil well supplies and materials of all sorts and kinds essential to the business, etc., have become largely interested, directly or indirectly, in this industry.

2. As a result of the operation of these companies a large quantity of petroleum was being produced daily prior to the events hereinafter related, the greater part of which petroleum was sold outside of Mexico, the business being largely international in its character.

The results of the developments heretofore made have rendered it certain that this territory will become in the near future the most important oil producing district ever discovered since the inception of this industry.

3. From the inherent nature of the business great risks and, in many cases, losses have been sustained; and very large amounts of money have been invested in this industry, only a small part of which has as yet been returned to the operators. On the other hand, however, thousands of Mexicans formerly working for an average of 36 centavos or 18 cents, United States currency, per day, have had their average wages increased to 200 centavos or one dollar, United States currency, per day; the prosperity of all the merchants and citizens of this region has greatly augmented; prices of all food and agricultural products have increased; the Mexican railway systems have enjoyed enlarged revenues; the Customs receipts of the port of Tampico have been enormously augmented; prices of land in this district have risen from one or two pesos per hectare in the year 1900 to many hundreds of pesos per hectare at the present time, depending upon location; the revenues of the Republic of Mexico have been swollen; the great need of the Republic, to wit, fuel, has been supplied; the costs of operation of its transportation systems have been cut in two; the need of the entire world for petroleum has been supplied at low cost; and in a word, the industry which we represent has, up to the present time, been primarily of great advantage to the Republic of Mexico and all the nations of the world rather than to ourselves.

4. Until the occupation of Vera Cruz by the American fleet all of the companies which we represent, despite many annoyances and obstacles, were engaged in the ordinary conduct of their operations, the great majority of their skilled employees being Americans owing to their special familiarity with the oil industry.

Immediately after the occupation of Vera Cruz, however, hostile demonstrations commenced against all Americans. At this particular period, when protection became of the greatest importance, the American war vessels which previously had lain in the Panuco River, thus giving to all Americans the visible assurance of protection by their national flag and exercising a most efficient repressive influence upon those by whom the safety of our representatives was menaced, were withdrawn from the Panuco River, and since that time have remained outside of the Panuco Bar.

This was immediately followed by rapidly increasing threats against, and danger to, Americans; and so aggravated did the situation become that within a few hours no recourse was left to American citizens except to embark upon British and German vessels in the harbour of Tampico, by which vessels they were taken to sea and transported to United States ports.

To-day practically, if not entirely, all of the Americans previously employed in the oil regions have departed, with the result that this great industry has been necessarily left in the care and custody of Mexican employees who had previously acted in subordinate capacities and had had no experience as experts in this industry.

Inasmuch as owing to the nature of the geology of this region it has been impossible to shut down entirely or to cap the principal wells of the district, there are now many thousands of barrels of petroleum per day flowing to waste from these wells, a situation which is pregnant with menace to all concerned.

5. We think it our duty to state to the world that we do not believe that the departure of these Americans from this district and the resulting colossal harm to the oil industry was due either to the direct orders of the chiefs of the various contending factions in Mexico or to the wishes of the majority of the Mexican people, but to the opportunity given by the events above described to the turbulent and impulsive spirits who ever attempt to take advantage of conditions such as those now existing. Our industry and those engaged in it have deserved well at the hands of all Mexican authorities and citizens, and until the developments at Vera Cruz, despite the many difficulties which had arisen and certain individual acts of injustice which had occurred, our men and the industry represented have received, on the whole, good treatment.

6. It is not our intention at the present time to enumerate the distressing scenes which attended the hasty abandonment of these enterprises by their operators, to enlarge upon the grave results to the individuals affected, or to attempt to blame or criticise any official or government for what has occurred. Our object is not to dilate upon the past but to set forth the present and to emphasize the needs of the future.

7. With regard, then, to the present, the situation is substantially as follows :—

(*a*) The entire petroleum industry in the greater part of the oil district of Mexico is to-day at a standstill.

(*b*) All shipments of petroleum have ceased from the port of Tampico.

(*c*) All, or practically all, of the great oil zone between the Panuco and the Tuxpan Rivers, as well as the regions on the north of the Panuco River and on the south of the Tuxpan River are in the hands either of the fighting forces or of unskilled native employees.

(*d*) Great quantities of petroleum are flowing from the wells, overflowing the available storage capacity, running down the arroyos and penetrating to the rivers and lagoons; and will eventually reach the Gulf of Mexico.

(*e*) Great numbers of Mexicans formerly employed in connection with this industry have suddenly been deprived of their daily earnings.

(*f*) This great source of revenue to the Mexican Republic has become unproductive.

(*g*) There is to-day a constantly increasing and most grave danger of enormous conflagrations, with possibilities of destruction not only of the wells and properties themselves, but of human life and of entire petroleum producing districts.

(*h*) The source upon which the world had relied for an enormous supply of most necessary fuel oil and petroleum products is temporarily abandoned.

(*i*) Lastly, it is no exaggeration to say that a genuine world catastrophe is threatened by the longer continuance of the foregoing conditions.

8. Immediately after the departure of the Americans as above stated, the most urgent representations were made to the Governments of the United States and Grea Britiain to accomplish the neutralization of this oil zone thus insuring protection to the operators should they resume their work. As a result of the strenuous efforts of the State Department and of the British Ambassado at Washington (to whom we hereby express our sincere thanks for their interest and activity) promises were obtained both from General Huerta and General Carranza that returning American oil men would not be molested.

Despite these efforts and promises, however, the situation still remains substantially unchanged.

Obstacles have been thrown in our path at Tampico by the local officers in command of the contending factions; delays are added to delays; representations have proved fruitless; intimations and statements of great danger to Americans are put forth; and the United States ships still remain outside the Bar of the Panuco River. With each hour that passes the dangers above enumerated become accentuated; and the great fact which we wish to emphasize is *that the men who thus left Mexico have not yet been able to return to their tasks.*

In view of the foregoing, it was resolved: "that we, the representatives of these companies, in meeting assembled, take such steps as may be within our power to make the facts public; to show that the industry in which we are engaged is not merely important to ourselves, but is vital to the Mexican Republic, to the United States and to the nations of the world; to urge the overwhelming importance of immediate action to protect this industry; and to appeal to the authorities of all contending factions in the Republic of Mexico, to all American citizens and to all officials of the United States Government to aid us in our efforts to resume the operation and protection of this district and to avert a calamity whose menace is addressed not merely to ourselves, but to the citizens, industries and governments of the Republic of Mexico, of the United States and of all civilized nations"; and also further resolved: "that a committee of five be appointed by the chairman of this meeting, with instructions to wait upon the President of the United States in person, to present to him the situation fully and in detail, and to urge upon him the propriety and necessity of exercising his authority and power in every proper way to obtain, at the earliest possible moment, from all necessary officials and individuals in the Republic of Mexico, such definite and specific orders and dispositions as may be necessary to insure the peaceful return of our employees to the oil regions and the guarantee of the unmolested resumption and continuance of our operations."

On the motion of the chairman, the following committee was appointed:—

Messrs. Richmond Levering, 27, William Street, New York City; Thomas A. O'Donnell, Security Building, Los Angeles, California; Joseph C. Trees, Union Bank Building, Pittsburgh, Pennsylvania; William A. Thompson, c/o The Texas Company, Houston, Texas; and George S. Davison, c/o Gulf Refining Company, Pittsburgh, Pennsylvania.

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Mr. WILLIAM HOUSTON,
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Mr. F. H. THOMPSON,
26, Sandhill,
Newcastle-on-Tyne.

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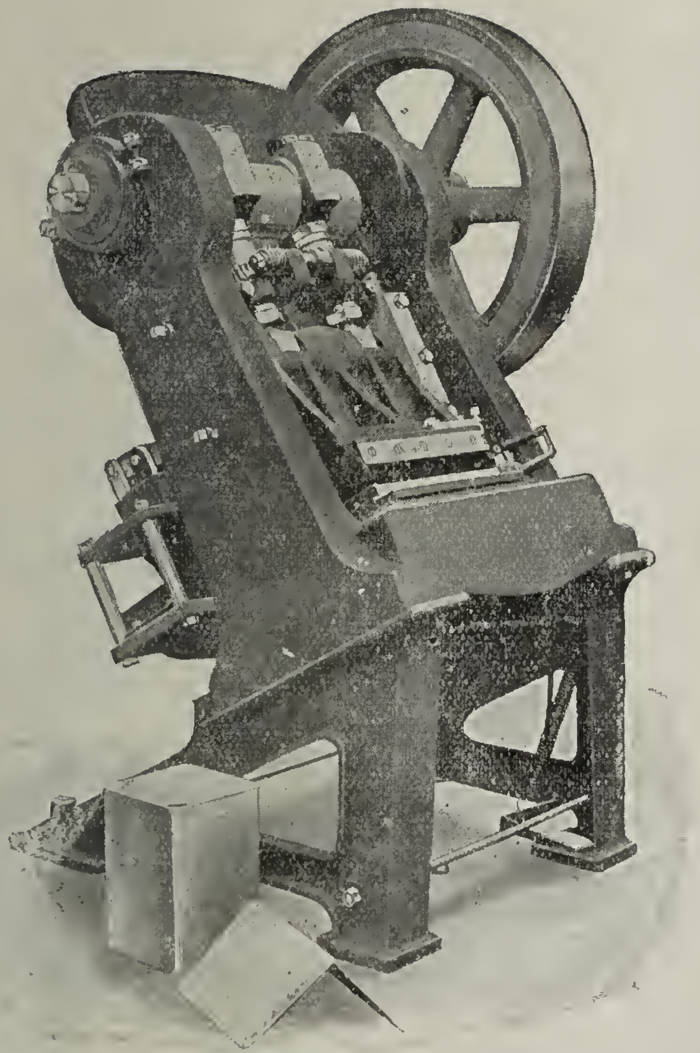

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## LATEST QUOTATIONS OF PETROLEUM SHARES.

### ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 24/0-25/0 |
| 5% Debentures ... ... | 600.000 | £100 | 98-103 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{11}{16}$-$\frac{13}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/3-4/9 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 6/0-7/0 |
| European Oilfields ... ... | 319,181 | 10/- | 6/0-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 30/9-31/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 41/0-42/0 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{7}{8}$-$\frac{15}{16}$ |
| Pacific Oilfields. Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 25/6-26/6 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/6-5/0 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{16}$-$1\frac{3}{16}$ |
| „ „ Ord... | 690,000 | fully pd. | 11/6-12/6 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047.610 | £1 | $5\frac{1}{8}$-$5\frac{3}{16}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 22/9-23/3 |

### RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 628 | 630 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2.750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 226 | 228 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,500 | 18,600 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 954 | 958 |
| Russian Naphtha Society ... ... | 100 | 183 | 185 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 181 | 183 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

### SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Late Price |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 24/6 |
| „ 6% Cum. Pref. | 100,000 | £10 | £11$\frac{3}{8}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 94/6 |
| „ Pref. ... ... ... | 250,000 | £1 | 27/1 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| „ 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192. 10s. | 10s. | 8/3 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 39/0 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 28/9 |
| „ Pref. (£1 paid) ... | 100,000 | £1 | 22/1 |
| Premier Oil Ord. ... ... ... | 2.300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 80/0 |
| „ 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 15/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 45/0 |
| „ "B" Deb. ... | 160,000 | £100 | £145 |

### DUTCH COMPANIES.

| Company. | | Quotatio (per cent |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| „ „ „ „ Pref. ... | „ | 181 |
| Royal Dutch Petroleum Co. ... ... ... | „ | 601 |
| Moeara Enim Petroleum Maatschappij ... | „ | 234 |
| Perlak Petroleum Maatschappij ... ... | „ | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | „ | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | „ | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | „ | 123 |

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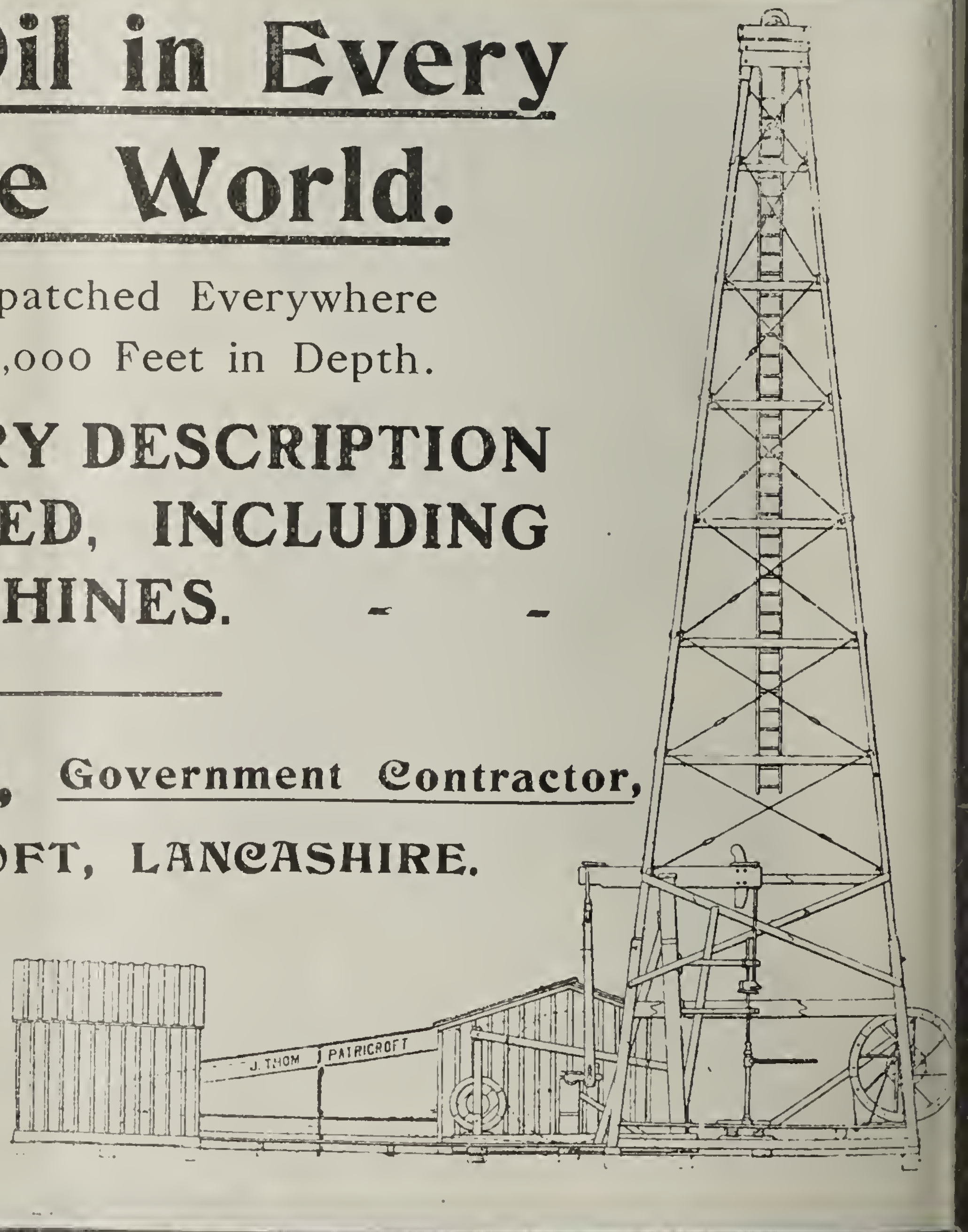

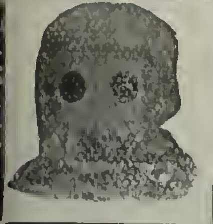
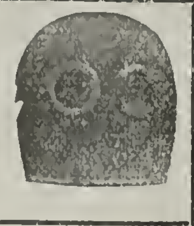

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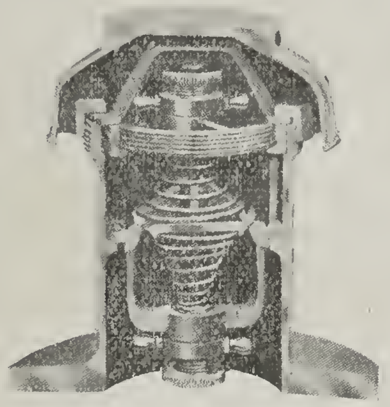

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
**American Office: 111, Broadway, New York.**

SATURDAY, MAY 23, 1914.

## THE NORTH CAUCASIAN OIL FIELDS, LTD.

THOSE who attended Wednesday's annual meeting of the North Caucasian Oil Fields, Ltd., or who peruse the interesting report of that meeting which will be found elsewhere in this issue, must be impressed with the remarkable progress which has been made by the company since it passed under the régime of the "Shell."

Formed as far back as 1901 with a modest capital of £10,000 (which was several times increased during subsequent years), and then having its registered offices at Newcastle-on-Tyne, the career of the North Caucasian Oil Fields, Ltd., has been one of steady yet consistent progress, which reached its crowning point about a year ago, when the capital was increased to three-quarters of a million sterling, and the Anglo-Saxon Petroleum Company, Ltd., became the company's commercial managers, with a strong board of directors, which included amongst its members Mr. H. W. A. Deterding and Sir Reginald McLeod.

As is known, the company operates in the Grosny oilfield, where by reason of the sound policy of management—carried out by Mr. A. MacGarvey—it is about the most envied company occupied in development work in that field. Mr. MacGarvey has consistently followed the policy which must appeal to all practical oilfield men—that of continuously drilling new wells—and the result is seen to-day in the company's crude oil output, which is approximately 6,000 tons per week, though a few weeks ago it was as high as 8,000 tons—a reduction which is only of a temporary character.

The extent of the drilling programme now being carried out upon the company's Grosny properties may be gauged by the fact that within the next few months over twenty new wells are due to come into production, so the anticipations that the output of crude oil may in the near future increase by 50 per cent. cannot be said to be in any way unreasonable. Without a doubt the North Caucasian Oil Fields, Ltd., has a very valuable property, and what is as great a factor to success is that it possesses an admirable field staff, and a brilliant manager. Then, too, it has ample funds at its disposal for working capital—without which liquid asset the most promising concerns may easily go to the wall.

It is interesting to learn that the new properties acquired by the company last year to the south-east of the Grosny field are recognised as a highly satisfactory purchase, not only on account of the comparatively modest price paid for them, but perhaps more on account of their great value of liquid oil contents. Up to the present time the properties have naturally not been developed to any great extent, but even at shallow depths, oil in commercial quantities has been found in the three wells drilled. Geologists all contend however that the heavy paraffinous crude met with at the shallow depths in this Bereki region will give place to a high grade crude oil in the deeper sands, and it is with a view to encountering the deeper producing strata that Mr. MacGarvey has rightly decided to drill deeper, for which purpose the production in one of the new wells has been stopped.

Reviewing the progress which the company has achieved during the past year, one cannot but agree with Mr. Francis Allen, the company's able chairman, that it has made a sudden move to prosperity. From its modest position of a few years ago it has become one of the greatest operating concerns in the Grosny district, and with an output for the present year estimated at 25,000,000 poods, the North Caucasian Oil Fields will practically divide honours with the Akhverdoff Company, whose crude oil production last year was under 30,000,000 poods.

We would here like to add our appreciation of the prudent lines upon which the company's finance is managed, as shown by the balance-sheet. Not only has a very substantial sum been written off before arriving at the profits for the past year, but all the oil used for power purposes, etc., on the fields has been written off from revenue, while to revenue are charged all expenses for the deepening of wells—an expense which, alas, is too frequently charged against capital in the case of many operating companies.

The North Caucasian Oil Fields, Ltd., has, we have no reason to doubt, a future before it which will be a credit to all concerned, and the glory of a past of which none need be ashamed.

◆

## THE PUMPHERSTON OIL COMPANY, LTD.

### A 25 per Cent. Dividend to be Declared.

The annual report of the Pumpherston Oil Company, Ltd., which is about to be issued, states that, after meeting maintenance charges and working of mines and including £13,600 brought forward, there remains a net profit of £153,751. The directors recommend that £15,000 be written off for depreciation, together with £10,707 for improved plant and £30,000 for works already authorised. A dividend is recommended on the Ordinary shares of 25 per cent., leaving a balance of £15,447 to be carried forward.

◆

## THE OIL FUEL COMMISSION.

On Thursday, in the House of Commons, Lord Charles Beresford asked the First Lord of the Admiralty if he would say when the report of the Royal Commission on oil fuel might be expected ; if the Commission was still sitting ; and whether he would state to the House the cost to the State of this Commission.

Dr. Macnamara : The Commission is no longer sitting and the final report has been received. The Admiralty have no record of the cost and it is suggested that the question should be addressed to the Secretary to the Treasury.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MAY 18th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. | Since May 11. | From Jan. 1. |
| **Belgium** .. | — | — | 19,890 | 285.190 | — | — | — | — | — | 32.220 | — | — | — | 1,350 | 19.890 | 318.760 |
| **Canada** .. | — | — | — | 4,400 | — | 44,580 | — | — | — | — | — | — | — | — | — | 48.980 |
| **Dutch Indies** | — | — | — | — | — | — | — | — | 4,960,060 | 21,689,260 | — | 83,400 | — | 1,748,910 | 4,960,060 | 23,521 570 |
| **Germany** .. | — | 29,250 | 52.050 | 1,139 880 | — | — | — | — | — | — | — | — | — | — | 52,050 | 1,169,130 |
| **Holland** .. | — | – | 410 | 3,660 | — | — | — | 55,000 | — | 3,313,180 | — | — | 1,600 | 8,270 | 2,010 | 3,380,110 |
| **Mexico** .. | 999,600 | 3,872,570 | — | 11,800 | — | — | — | — | — | 1,218,860 | — | 3,668,710 | — | 800 | 999,600 | 8.772,740 |
| **Roumania** .. | — | 6,388.820 | — | — | — | 961.440 | — | — | 208,400 | 1,618,650 | 576,680 | 2,361,470 | — | — | 785,080 | 11.330.380 |
| **Russia** .. | — | 2,909,650 | — | 2,599,670 | — | — | — | — | 2,023,520 | 8,295,400 | — | — | — | 630 | 2,023,520 | 13.805.350 |
| **U.S.A.** .. | 4,158,580 | 42,985,970 | 2,256,720 | 19,995,610 | — | 91,270 | 3.470 | 28,106,260 | — | 5,490,500 | 2,130 | 5,603,330 | 25,240 | 243,690 | 6,446,140 | 102.508,220 |
| **Other Countries** | — | 3,770 | 40 | 139,540 | -- | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 40 | 149.130 |
| | 5,158,180 | 56,190,030 | 2,329,110 | 24,179,750 | — | 1 097,290 | 3,470 | 28,162,720 | 7,191,980 | 41,658,280 | 578,810 | 11,721,060 | 26,840 | 2,003 650 | 15.288.390 | 165,004,370 |

# RUSSIAN AND ROUMANIAN NOTES.

## RUSSIAN.

**The Binagadi Spouter.**—The petroleum spouter which broke out at Binagadi, and acted for over a week, stopped on April 28th owing to the formation of a cork.

**Auction Sales of Petroliferous Plots.**—The Ministry of Trade and Industry, in conjunction with the Governor of the Caucasus, has fixed auction sales of thirty-six State petroliferous plots for June 6th next at Baku.

**J. A. Akhverdoff & Co.**—An extraordinary meeting of the shareholders of this company has taken place in order to acquire 500 dessiatines of petroliferous lands in the Caucasian district for the purpose of petroleum exploitation and production.

**New Leases for Petroleum and Gas Exploitation.**—The mining engineer of the Second Caucasian Mining District has concluded agreements with various people for the leasing to them of petroliferous plots for the exploitation of petroleum and natural gas at Mardakan, Balakhani, and Pilshela, in the Baku province.

**Volga Navigation.**—Cold weather, which has again appeared on the Volga, has delayed the opening of the navigation, which, instead of beginning early, as was expected, will be late. Owing to this fact there are at Tzaritzin an enormous fleet of tankers and barges which cannot proceed up the Volga for fear of meeting with ice.

**Petroleum at Ekaterinodar.**—A spouter has broken out from a depth of 196 ft. in a hand-dug well situated at a distance of 30 versts from Ekaterinodar, at the village Kaluga on a plot leased by the Vladikavkas Railway from the Kaluga Petroleum Society. For ten days spouting has continued uninterruptedly. The spouted oil is of specific gravity 0·970.

**Extension of the Grosny Station.**—In view of the considerable increase in the production of the Grosny petroleum oilfields, and the inadequacy of the Grosny station for the increased exports, also owing to the fact that Vladikavkas Railway is now unable to cope with them, the Military Ministry has been addressed with a demand to enlarge and rebuild the station.

**State Petroliferous Exploitations.** — The Council of Ministers has sanctioned the project of the Ministry of Trade and Industry to organise a State petroliferous production of 25,000,000 to 30,000,000 poods. The expenditure connected with the exploitation is estimated at 14,000,000 roubles. The organisation of the industry will take four or five years. The refining of the produced oil will be given to private refiners.

**Messrs. Nobel Bros. in Persia.**—The kerosene depots which Messrs. Nobel Bros. established in Northern Persia four or five years ago have shown very favourable results. The demand for kerosene and petroleum products generally is considerably increasing, and Nobel Bros. have now decided to extend their activity in Persia and open new depots at Tavriz, Julfa, Urmia, etc. The Mazout Company also intends to enter the Persian market, and will soon open depots.

**Peat in Russia.**—With the increase in the prices of fuel, peat acquires greater importance. The State owns enormous peat fields, and is therefore very interested in the question. Unfortunately the sums of money devoted to the development of this industry by the State are very small, and now only amount to about 70,000 roubles per annum. A project is now under consideration for the investigation of 21,775 dessiatines of peat fields in order to enter this area into exploitation.

**High Prices of Liquid Fuel in the Kokand.**—The Kokand Exchange Committee complains of the very high price prevailing in the Kokand for liquid fuel. In January, 1913, the price of crude oil there was 54 copecs per pood, which soon rose to 70 copecs and then to 85 copecs. Thus the Ferghana district, which during nine to ten months of the year consumed 2,500,000 poods of petroleum, overpaid a sum of 800,000 roubles. The Kokand Exchange Committee is, therefore, of the opinion that strict measures should be prepared to keep the prices at a normal level.

**Sales of Petroliferous Plots for Hand-dug Production.**—The auction sales of petroliferous plots for hand-dug production have not brought any result. According to the estimate of the Government, based on data supplied by the producers themselves, the production may be estimated at 11,000,000 poods, and counting the average price in 1914 at 40 copecs, a sum of over £4,000,000 will be realised from this industry, while the rent has been fixed at 140,000 roubles, that is to say less than 5 per cent. On the other hand, the producers do not accept the above estimate as correct, and are asking for the appointment of a special committee to fix the real yield and rentability of the plots.

## ROUMANIAN.

**Astra-Romana.**—The production of this company now averages 1,250 tons a day, of which nearly 1,000 tons are obtained at Moreni.

**Official Price of Kerosene.**—The Ministry of Finance has maintained for the future the official price of kerosene at 7.80 francs per 100 kilos.

**Prices.**—The prices of crude oil show a slight tendency to decrease, which is caused by the reduction in the price of benzine and residuals on the interior market.

**Exportation.**—Exportation is very active. The number of daily trains is now six, but the number of tank wagons is reduced which is causing some delay in exportation.

**Romana-Americana.**—The production of this company now averages 1,010 tons a day, 980 tons being obtained at Moreni, 20 at Baicoi and the rest at Bustenari and Tetzcani.

**Steaua-Romana.**—The production of this company for the past week averaged 1,000 tons a day. Eruptions were registered in well No. 233 at Chiciura, and No. 235 at Tzonteshti.

**Kerosene Contingent for Inner Consumption.** — The quantity of kerosene fixed as contingent for inner consumption for the year 1914–1915 amounts to 57,000 tons. The contingent of the Astra - Romana, Romana - Americana, Colombia - Cernavoda and Lumina, Predinger, and some other small refineries has been considerably increased.

**Activity of the Astra-Romana.**—Well No. 16 S. of the Astra-Romana at Moreni continues its eruptions with a yield of about 150 tons a day. The production of well No. 37 is temporarily stopped, while well No. 39 A.R. still yields large quantities of sand and gas. Well No. 17 S. is being deepened as the extraction from the present depth is not giving the expected results.

**New French Enterprise in Roumania.**—An important group of French capitalists from Roubaix has acquired the exploitations of Negulesco and Minculesco of Bustenari, including fields at Bustenari, Bordeni and Scaioshi. A sum of 500,000 francs has already been paid as acquisition on the above properties. The production of the fields acquired amounts at present to about 2,000 tons a year.

**Production.**—The general production is maintained at an average of 5,000 tons a day. Great activity is displayed on all the fields, especially at Moreni and Bana in the neighbourhood of the well No. 30 of the Roumanian Consolidated Oilfields, Ltd., which has opened the north-western part of the district. On May 8th, this well made another powerful eruption lasting about eleven hours, and yielding over 1,000 tons of oil.

**Production during April.**—The production of crude oil during April of the various firms operating under the new style was as follows :—Astra-Romana, 47,663 tons ; Romana-Americana, 31,186 tons ; Orion, 5,022 tons ; Roumanian Consolidated Oilfields, 4,304 tons ; Chiciura Oilfields of Roumania, 7 tons ; Nafta, 3,848 tons ; Internationala, 3,231 tons ; Traian Roumanian Oil Company, 1,918 tons ; Aquila Franco-Romana, 1,389 tons.

**Société Française Foncière et Petrolifere.**—There has been established at Paris by an important group of capitalists a new enterprise under the above title, with a capital of 1,000,000 francs, for the purpose of petroleum exploitations in Roumania. The new company has acquired from the Sphinx Petroleum Company a participation in its production, from the latter company's wells at Tzintea. The price paid for this participation is 100,000 francs.

## AMERICAN NOTES.

**Refinery Fire.**—The No. 5 plant of the Eclipse Oil Works at Franklin has been burned out, involving damage estimated at nearly $75,000.

**Water in the Coalinga Field.**—Operations have for some time been seriously retarded in the Coalinga field by the finding of water in wells, but this menace is being steadily overcome, and to-day wells which some time ago had gone almost totally to water, are now placed on the oil-producing list.

**Natural Gas in Arkansas.**—A report of the United States Geological Survey states that there are gas wells with a production as high as 4,250,000 cubic feet per day near Fort Smith, Arkansas. The geologic anticlines and synclines of the region are easily recognised from surface exposure of the rocks, and the finding of the gas in the crests of the anticlines indicates that they control in a large measure, at least, the locations of gas accumulations.

**The Pierce Oil Corporation's Tampico Refinery.**—This Corporation's refinery has now a daily capacity of 10,000 barrels. There are thirty-two stills in operation inclusive of the crude and other stills. The refinery can case and ship 4,500 cases of refined products per day. Mr. H. Warren, the refinery's general superintendent, states that the refinery is capable of producing a lighter gravity gasoline than can be obtained in the United States.

**The Standard Company's New Plant.**—The new refining plant of the Standard Oil Company of New Jersey in Mexico is rapidly approaching completion, and is expected to be put into operation during June. It is situated on the south bank of the Panuco river at a point practically opposite the Mexican Eagle Company's refinery. The portion of the refinery nearing completion consists of four stills, with an aggregated capacity of 4,000 barrels of crude oil daily. A 12-inch pipeline connects the refinery with the Huasteca Company's lines.

**Gushers in the Sunset Fields.**—One of the greatest gushers in California, and certainly the greatest ever completed in the Sunset field of California, is that well drilled by the Miocene Oil Company in the Maricopa Flats, which has the record for producing 25,000 barrels in one single day. At first the well was drilled into the shallow sand, when it made 150 barrels daily, but it was eventually deepened, with the result already stated. Another good gusher is the well of the Midland Oilfields Company, which, after producing at the rate of 15,000 barrels per day, sanded up.

**April in the Mexican Fields.**—During April there was much activity in the Panuco and Topila fields, and some good producing wells were brought in. In the third week of the month no less than sixty wells were completed, the new production being estimated at nearly forty thousand barrels. Complete figures of the new wells brought in or of the developments in several districts are impossible owing to the unsettled state of the country. From Tampico developments extend all along the coast to points south-west of Tuxpan, while there are some operations in Lower Vera Cruz and on the Isthmus of Tehuantepec.

**The Royal Dutch-Shell in California.**—The operations of this powerful combination in connection with development work on the property acquired from the California Oilfields, Ltd., are very slowly proceeding, there apparently being inadequate facilities for handling the output. As a result, the larger number of wells have been shut down since the contract with the Standard finished some months ago. The combine, however, is making great preparations for storing oil, having built a number of reservoirs, so that with the construction of the pipeline, which will be the next move, the crude oil output will be of such importance as to give assurance of a large supply of oil, for a number of strings of tools are now being kept busily engaged in new wells.

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## DEVELOPMENTS IN THE OILFIELDS.

### LATEST PROGRESS REPORTS.

**Black Sea Oilfields, Ltd.**—Well No. 2, otvod 29, stopped all week for repairs.

**Traian Roumanian Oil Company, Ltd.**—Production week ended 15th instant, 429 tons.

**Maikop Pipeline and Transport Company, Ltd.**—Received for pumping, week ended 17th instant, 86,743 poods (1,399 tons).

**United British Oilfields of Trinidad, Ltd.**—Production for week ended May 15th, 500 tons. Storage tanks full; further storage on order.

**Anglo Egyptian Oilfields, Ltd.**—Production week ended 17th instant, 1,843 tons (last week 1,950 tons), of which Hurgada, well No. 3, 167 tons.

**Kansas-Oklahoma.**—Produced from own wells, April, 16,200 barrels. Total amount of oil run through pipeline to refinery, April, 46,000 barrels.

**Anglo-Roumanian Petroleum Company, Ltd.**—Production week ended 16th instant, 345 tons. Bordeni, No. 16 stopped three days, fishing for baler; has been recovered.

**Tulsa Oil Company, Ltd.**—Manager cables that No. 3 well at Bald Hill has struck oil and looks good for over 50 barrels a day. No. 1 well on the same plot is still giving about 150 barrels daily.

**Anglo-Persian Oil Company, Ltd.**—Telegraphic advice from Persia states that the specific gravity of the crude obtained from the large well, which has recently been shut in to 1,500 tons daily, is ·838, which indicates a high quality of oil.

**Anglo-Maikop Corporation, Ltd.**—Telegram, dated 18th instant, from general manager:—"Plot 108—Maikop Deep Drilling Company well is flowing intermittently; production, May 13th, 354 poods; 14th, 290 poods; 15th, 430 poods; 16th, 750 poods; 17th, 518 poods.

**Gouria Petroleum Corporation, Ltd.**—Telegram dated 17th inst.: "Boring No. 1: gas and very rich oil traces at 403 ft., from which we have drawn 11 lbs. oil. Present depth, 430 ft., with still richer oil traces. Borings Nos. 2 and 3: all construction works in steady progress; pits at 17 ft. show gas and very good oil shows."

**Spies Petroleum Company, Ltd.**—Plot 127 (South Baskakoff)—Well No. 1 was out of production during week for deepening. Latest news, just received by cable, states that this well started overflowing on the afternoon of the 18th instant, rate 1,400 poods per hour, about 33,000 poods per day; oil flowing direct to reservoirs.

**Roumanian Consolidated Oilfields, Ltd.**—Production week ended May 16th, 1,005 tons. Cablegram from Ploesti, dated May 18th:—"Moreni, well No. 30—Have completed precautionary measures required by mining authorities; expect to restart well to-morrow. Well No. 15 has struck oil at depth of 1,328 ft.; now testing."

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# MISCELLANEA.

## THE DEVELOPMENTS IN THE URAL PROVINCE.

The declaration of the Government that seven districts in the Ural province have been proved as petroliferous areas, which are now closed for private siavkias, and the report of the Geological Committee, which has incontestably established the petroliferous nature of these areas, has induced numerous concerns to seriously commence development work in the Urals.

At Mortuk, near the station Emba and the Taskhent railway, Messrs. Nobel have commenced boring a well which is intended to reach a depth of 700 ft. All the necessary materials, such as cases, boring benches, etc., are already on the spot, and the working party there consists of 100 people, under the direction of the engineer Khamilonoff. During the summer months Messrs. Nobel intend to explore 250 siavkias at Getas-Sai, Keikevas, and Teresakan, all in the Ural province. Another exploration party has been organised by the South-Eastern Petroleum Society, which has acquired there 458 siavkias. This party is working under the direction of the geologist N. N. Tikhonovitch. At first shallow borings will be put down to a depth of 175 ft., in order to establish dislocation lines, the decline of the strata, and also with the object of preparing a geological map. The operations of this party are planned at Murza-na-Adir, Koga, Kizildjar, Kiakti-Sa, and Dongulek-Sor, all in the Ural province.

Another party has been organised by a Moscow group of capitalists, whose boring works are planned by the geologist Sokoloff. This company will commence work in the south of the Simbirtinsk district, as well as at Tas-Timir and Sar-Kuduk. A fourth group is organised by French capitalists, who are investing 1,200,000 francs for the purpose of boring. The work intended by this group is planned by the geologist Duparc. This syndicate intends to bore three wells, one in the Gourieff district, one in the Jidelesajz district, and another at Mortuk.

## BRISTOL AND ITS PETROLEUM TRADE.

Presiding last week at the annual meeting of the Bristol Chamber of Commerce, the Lord Mayor made reference to the petroleum trade of Bristol. He said they were looking forward in the near future to asking the Council to sanction a further expenditure of money for increasing the facilities of the port, not a large sum, in that direction. The petroleum products was one of their staple imports. The increase there last year was not large, something just under 5,000 tons, but there was an installation now being set up for a very large company. The committee were preparing a berth for it which they hoped would be ready in the next few months, and they were expecting a large increase in that business as well. It was necessary to note that during the past five years the increase in petroleum and petroleum products had been no less than 56,000 tons, and there seemed to be no limit to the possibilities of that trade.

## PROTECTION FOR THE TAMPICO OIL WELLS.

On Tuesday, in the House of Commons, Sir J. D. Rees asked the Secretary for Foreign Affairs whether Tampico was now in the hands of the Carranza-Villa party; if so, whether the United States Government, to the support of which this party's present position was due, acknowledged responsibility for the protection of the oil wells and oil trade in the districts around and within reach of Tampico; and, if not, whether His Majesty's Government would make representations to the United States Government with a view to the satisfactory safeguarding of this industry.

Sir Edward Grey replied that Tampico was occupied by Mexican Constitutionalists on May 13th. Representations had been made on several occasions to the United States Government to use their influence to secure the protection of the oil wells, and he was informed that the United States Government had taken measures to impress upon the Constitutional leaders the necessity of respecting these interests. Representations had also been made to the Constitutionalists by the Rear-Admiral commanding the Fourth Cruiser Squadron, who had received satisfactory verbal assurances as to the preservation of foreign property.

## THE QUESTION OF TAXING KEROSENE AND BENZOL.

In the House of Commons on Tuesday, Mr. Weigall asked the Chancellor of the Exchequer whether he was aware that during the last financial year approximately 46,000 tons of benzol and 40,000 tons of kerosene used for propulsion of motor vehicles was so used without any payment of duty, thus resulting in a loss of approximately £250,000 to the revenue of the Road Board; and what steps he proposed to take to prevent a repetition of this loss.

Mr. Lloyd George: I am aware that benzol and kerosene are to some extent used for the propulsion of motor vehicles, though I have not previously seen anything like so high an estimate of the amount so used as is suggested in the question. The question of the taxation of these articles, if and when they come to be ordinarily and generally used for supplying motive power to vehicles, will not be lost sight of.

## NATURAL GAS FOR RAILWAY LIGHTING PURPOSES.

During the past year, according to statistics issued by the Medicine Hat Board of Trade, Canadian natural gas was supplied into 23,874 coaches and cars of passenger trains, an average of 2,000 cars per month, or 60 cars per day. The tanks are filled from the Canadian Pacific Railway Company's big gas well, which is one of twenty situated within the city of Medicine Hat. As the pressure at the well is in excess of 550 lbs. to the square inch, no pumping is necessary. The tanks on the passenger coaches have an average burning capacity of forty hours for each car, with average burning period of seven hours out of each twenty-four. Natural gas is burned on the Canadian Pacific on the through passenger trains from Vancouver to Montreal.

# THE BIBI-EIBAT OIL COMPANY, LTD.

## DECLARATION OF A DIVIDEND.

THE report of the directors of the Bibi-Eibat Oil Company, Ltd., to be submitted to the shareholders at the second ordinary general meeting, to be held at River Plate House, Finsbury Circus, London, E.C., next Tuesday, is as under :—

The company was incorporated on February 4th, 1913, and the directors herewith present the audited accounts for the period ended March 31st, 1914. It is hoped in the near future to alter the date to which the accounts of the company are made up, so that the period covered may correspond more closely with those of the Russian company (La Société de Naphte de Bibi-Eibat).

The gross income for the period under review amounted to £40,916. 5s. 7d., of which £26,315. 15s. 9d. represents profits remitted by the Russian company, and £14,600. 9s. 10d. the return upon investments, temporary loans, etc. Office and administration charges amounted to £4,139. 16s. 5d., and the gross profit to £36,776. 9s. 2d. After providing £3,625 for debenture interest and redemption and £386. 16s. 11d. for other charges, there remains to be dealt with a net profit of £32,764. 12s. 3d.

The directors propose to write off £11,218. 9s. 4d., being the whole of the preliminary expenses of the company (including £10,000 underwriting commission), and recommend the payment of a dividend of 9d. per share or 7½ per cent. (equal to £17,813. 1s. 3d.), leaving a balance of £3,733. 1s. 8d. to be carried forward.

The accounts of the Russian company for the year ending January 13th, 1913, n.s., show a gross profit of Rs. 461,054·57. After placing Rs. 14,385·90 to reserve, writing off Rs. 173,336·65 for depreciation, and paying the Russian tax on profits, amounting to Rs. 23,332·02, there remained a net profit of Rs. 250,000, which was remitted to this company and realised the above-mentioned sum of £26,315. 15s. 9d.

Information furnished by the Russian company shows that the total quantity of crude oil produced during the year ending January 13th, 1913, n.s., was 6,617,500 poods (106,734 tons), of which 1,129,600 poods were used for fuel. Of the remaining 5,487,900 poods, 40 per cent. (2,195,160 poods) was taken by the Government as royalty. The remaining 60 per cent. (3,292,740 poods), belonging to the company, realised Rs. 1,074,239·24. The average price realised was 30·137 copecs per pood during the first half of the year, and 34·6 copecs per pood during the second half of the year. The average cost of production was 17·77 copecs per pood. During the year oil was obtained from 36 different wells, 28 of which were producing at the end of the year, whilst the remaining 8 were undergoing repairs. The amount of boring done during the year was 123 sagenes (861 ft.).

On reference to the balance sheet it will be seen that the company is in a strong financial position, the cash and investments alone amounting to £112,913. 11s. 3d., whilst the current liabilities amount to only £1,900. 5s. 10d.

All the liabilities of the Russian company, other than that for the 1910–1911 royalties, amounting to Rs. 389,541·05, or say, £41,388. 14s. 7d., have now been discharged, and it has been finally arranged with the Russian Government that the above sum shall be paid by instalments extending to July 1st, 1915. The requisite funds will be advanced as a loan by this company, in accordance with the scheme of reconstruction, and the indebtedness of the Russian company to this company will be increased accordingly.

Mr. A. I. Mancho, the general manager of the Russian company, visited London in November last, and again in February, to confer with the board of this company, with the result that it was decided to sink two new wells—No. 39A on plot 2 and No. 40 on plot 48—and preliminary work is now in hand in both cases.

The projected deep well No. 11 on plot 50 had reached a depth of 412 sagenes (2,884 ft.) in December last, when the instruments in the well became detached. After a delay of three months the instruments were successfully extracted early last month, and the work of deepening has now been resumed. This well is expected to reach a fountain oil source, hitherto unexploited by this company, at a depth of approximately 430 sagenes (3,010 ft.). There is every reason to hope that the deep well just mentioned will be completed during the present year, and soon thereafter one or both of the two new wells.

In consequence of the collapse in January last of one of the company's most prolific wells—No. 10—the weekly production fell away by 12,000 to 13,000 poods. The repairs to this well are now well advanced, and production should be resumed at an early date.

Although reduced royalties on the Government plots at Bibi-Eybat were promised more than four years ago, the question is still in abeyance. The whole attitude of the Russian Government towards the Baku oil industry gives little hope of any substantial amelioration of existing conditions, except in return for burdens which would leave producers in a worse position than before.

As already reported to the shareholders, a zaiavka, or prospecting licence, has been acquired by the company over 99 acres of land on the new oilfield to the south-east of Grosny, almost immediately adjacent to the Tchermoieff and Belik estates, which have recently come into such prominence. The holding is subject to royalties of 3½ copecs per pood, which at the present price of oil (35 copecs per pood) is equal to only 10 per cent. of the net production.

During the labour troubles in Baku last August, when the price of oil reached an unprecedented figure, work was carried on without interruption on the company's properties, timely concessions having been made to its workmen.

The board has appointed Mr. Richard Barnett as a director under Article 85. This appointment will be submitted to the shareholders for confirmation.

*Dr.* BALANCE SHEET AS AT MARCH 31st, 1914. *Cr.*

LIABILITIES.

| | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| To Share Capital authorised— | | | | | | |
| 625,000 shares at 10s. each | 312,500 | 0 | 0 | | | |
| ,, Share Capital Issued— | | | | | | |
| 475,015 shares of 10s. each | 237,507 | 10 | 0 | | | |
| *Less* calls in arrear .. .. | 423 | 8 | 0 | | | |
| | | | | 237,084 | 2 | 0 |
| ,, Six per cent. Debentures— | | | | | | |
| *Authorised*—1,300 Debentures of £50 each .. | 65,000 | 0 | 0 | | | |
| *Issued*—1,250 Debentures of £50 each .. | | | | 62,500 | 0 | 0 |
| ,, Unclaimed Debenture Interest .. .. | | | | 183 | 12 | 6 |
| ,, Sundry Creditors .. .. .. .. | | | | 1,900 | 5 | 10 |
| ,, Profit and Loss— | | | | | | |
| Balance being net profit from the formation of the Company, 4th February, 1913, to 31st March, 1914 .. .. .. .. | | | | 32,764 | 12 | 3 |
| | | | | £334,432 | 12 | 7 |

Note.—Income Notes (which do not form part of the Capital Liability) have been issued to the extent of £31,250.

ASSETS.

| | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| By Property Account— | | | | | | |
| Shares in La Société de Naphte de Bibi-Eibat and Lands at Grosny.. .. | 137,826 | 4 | 2 | | | |
| Amount owing by Russian Company .. .. .. | 61,250 | 0 | 8 | | | |
| | | | | 199,076 | 4 | 10 |
| ,, Investments, at or under Cost | | | | 12,470 | 19 | 5 |
| ,, Office Furniture .. .. | | | | 80 | 10 | 10 |
| ,, Preliminary Expenses .. | | | | 1,218 | 9 | 4 |
| ,, Underwriting Commission .. | | | | 10,000 | 0 | 0 |
| ,, Sundry Debtors .. .. | | | | 11,143 | 16 | 4 |
| ,, Cash on Short Loans— | | | | | | |
| Against Security .. .. | 44,000 | 0 | 0 | | | |
| ,, Cash on Deposit .. .. | 54,700 | 0 | 0 | | | |
| ,, Cash on Current Account and in Hand .. .. .. | 1,742 | 11 | 10 | | | |
| | | | | 100,442 | 11 | 10 |
| | | | | £334,432 | 12 | 7 |

HERBERT ALLEN, } *Directors.*
A. H. WRIGHT, }

# THE MAIKOP COMBINE, LTD.

## A SATISFACTORY REPORT.

The report of the Maikop Combine, Ltd., to be presented to the meeting next Tuesday, covers the period from its incorporation (October 30th, 1912) to January 13th, 1914 (December 31st, 1913, o.s.), and states that the company was formed to acquire and consolidate the various undertakings of the Maikop Areas, Ltd., the Maikop Apsheron Oil Company, Ltd., the Maikop Hadijensky Syndicate, Ltd., and the Maikop and General Petroleum Trust, Ltd. The property acquired consists of 59 plots, spread over the Maikop field. Much time has been occupied in carrying out the legal formalities in connection with the transfer of such a large number of plots. The difficulty referred to at the statutory meeting with regard to transfer of some of the plots were successfully overcome in August last. All the property has now been transferred into the name of Mr. Leopold Andreis, the company's trustee in Russia, pending the recognition of the company, application for which has been made to the Russian Government. To comply with the Russian Government Mining Laws considerable work had to be done on the majority of the plots during the period under review in order to maintain the leases. The directors are glad to report that in every case the Government requirements have been carried out within the specified time. In addition to the obligatory work, four exploratory wells have been completed in the Neftianaya district, and two are now in drilling in the Shirvansky district. Oil was met with in two of the four wells, but the output was comparatively small, the total production to December 31st, 1913, old style, being about 25,000 poods. The two wells in drilling in the Shirvansky district are on plot 457, the present depths being 1,025 ft. and 775 ft. respectively. The light oil area in that district is being gradually traced northwards, and the development work during the past year has proved a large extension of the oil sand towards plot 457. The new well of the Maikop Premier Oil Syndicate, Ltd., is only about 300 yards from the southern side of this company's plot. The formation passed through so far in the wells on plot 457 is similar in character to that met with in the producing wells of the Maikop Victory Oil Company, Ltd., and of the Maikop Premier Oil Syndicate, Ltd. The company holds a considerable number of plots in the north-eastern portion of the field, and, as several productive wells have recently been brought in by other concerns in this district, preparations are now being made to commence two wells on the companies' properties there. The company has an interest of 20 per cent. in plot 120, on which a deep well is being drilled at the joint expense of several companies in the Anglo-Maikop group. The well has already reached a depth of 2,096 ft., at which depth thin layers of oil sand have been encountered. It is estimated that this well should reach at a depth of from 2,200 ft. to 2,300 ft. the oil strata discovered by the Maikop Deep Drilling Company, Ltd., on plot 108, on which active operations have now been resumed. The results obtained from these deep wells will be of considerable importance to the Maikop field generally.

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# NEW ENGLISH COMPANIES.

### THE TOKEN SYNDICATE, LTD.

REGISTERED on May 12th by Milner & Bickford, 10, Moorgate Street, E.C. Capital, £1,000 in £1 shares. Objects: To secure oil, petroleum, and other lands and options over the same and pipelines and refineries, etc., in the United States of America and elsewhere, and to carry on the business of oil and petroleum refiners, etc. Signatories, A. T. Fitch, 10A, Abercorn Place, N.W., and E. A. Butcher, 7, Park Mansions, Fulham, S.W. First directors (to number not less than two nor more than five) are not yet appointed. Registered office, 2, Tokenhouse Buildings, Lothbury, E.C. Private company.

### EXCELSIOR ROMANA OIL COMPANY, LTD.

Registered on May 13th by G. C. Bingham, 54, New Broad Street, E.C. Capital, £15,000 in 2s. shares. Objects: To search for and deal in oil, naphtha, and other minerals, and to carry on the business of distillers, refiners, and sellers of, and dealers (wholesale and retail) in oil and products of all kinds, etc. Minimum cash subscription, 10,000 shares. Signatories, J. B. Graham, 6, Broad Street Place, E.C.; J. A. Gussin, 36, Tyneham Road, Lavender Hill, S.W.; E. Owlett, 24, Kennington Road, Lambeth, S.E.; P. C. Andrews, 105, Belgrave Road, Wanstead, Essex; C. N. Radcliffe, 6, Darnley Road, Holland Park, N.; L. Hinton, 12, Brunswick Place, City Road, N.; and M. R. Willis, 55, Coleridge Road, Crouch End, N. First directors (who are to number not less than two nor more than six) are to be appointed by the signatories. Qualification (other than first directors) 1,000 shares. Remuneration, £100 each per annum (chairman £125). Secretary and registered office, P. C. Andrews, 6, Broad Street Place, E.C.

### RUBBERINE, LTD.

Registered on May 14th, by Mawby, Mawny & Morris, 5 & 7, Queen Street, Cheapside, E.C. Capital, £15,000 in 5s. shares. Objects: To acquire patents, or other information, as to any invention in relation to the solidifying and toughening of oils, and to carry on the business of manufacturers of artificial rubber, etc.; also to enter into an agreement with Rubberamalga, Ltd. (now in liquidation), and T. P. West (the liquidator thereof), and to enter into a trust deed with Sir B. Blood, G.C.B. Minimum cash subscription, seven shares. Signatories: T. J. M. Hume, 124, North View Road, Hornsey, N.; J. Tobin, 11d, Peabody Buildings, Farringdon Road, E.C.; A. J. Owen, 6b, Cato Road, Clapham, S.W.; H. J. Carter, "Glaisdale," Monkham's Lane, Woodford, Essex; Dorothy H. Allder, 15, Hargrave Road, Upper Holloway, N.; C. W. Bennett, 84, Grange Park Road, Thornton Heath, Surrey; and A. Warren, 54, Lytton Road, Leytonstone, N.E. First directors (who are to number not less than two nor more than seven) are to be appointed by the signatories. Qualification: a director must be a shareholder. Remuneration (other than any managing director), £2. 2s. for each board meeting attended, and an additional £1. 1s. for the chairman for each board meeting attended. Registered office, Campsbourne Mews, Hornsey, N.

### THE MARIA ESTATE (TRINIDAD) OILFIELDS, LTD.

Registered on May 14th, by Armitage, Chapple & Macnaghten, 80, Bishopsgate, E.C. Capital, £160,000 in 5s. shares. Objects: To acquire lands, mineral, oil, and other properties, and also grants and concessions, etc., over same, in the Island of Trinidad, British West Indies, or elsewhere; to prospect for, make boring, and otherwise search for oil, etc., and to carry on the business of dealers in oils, etc.; also to enter into an agreement with R. W. Cater. Minimum cash subscription, 240,000 shares. Signatories: W. B. Pipkin, E. Richardson, and A. E. Brain, all of 80, Bishopsgate, E.C.; H. H. Thompson, 32, Carlton Road, Manor Park, Essex; W. C. Strand, 76, Reighton Road, Clapton, N.E.; W. E. Bowley, 15, Leopold Buildings, Columbia Road, Bethnal Green, E.; and W. H. Young, 19, Crediton Road, Willesden, N.W. First directors (who are to number not less than three nor more than seven) are to be appointed by the signatories. Qualification, £100. Remuneration, £100 each per annum (chairman £200), and in addition in each year in which a dividend is paid to the members, a sum equal to 2½ per cent. of the profits (divisible), distributed as dividend in that year, provided that the total remuneration payable to the directors in any year shall not exceed £2,500.

### ALBERTA PETROLEUM SYNDICATE, LTD.

Registered on May 15th, by Hays, Schmettau & Dunn, 11 & 12, Clement's Lane, E.C. Capital, £5,000 in £1 shares. Objects: To acquire oil, petroleum and mineral-bearing lands and claims, and options over oil and petroleum-producing and mineral properties, and to turn to account same, and to carry on the business of oil, naphtha, naphtha products, and petroleum refiners, etc. Signatories: E. E. Irion, 9, Millar's Road, Leyton, and D. McKenzie, 51, Churston Avenue, Upton Manor, Essex. First directors are to be appointed by the signatories. Qualification, £100. Remuneration (other than managing director), £75 each per annum (chairman, £100). Private company.

## DETAILS OF BAKU PRODUCTION DURING FEBRUARY.

THE following table shows the details of the petroleum production on the Baku areas during February:—

| | Number of Wells in exploitation. | Production (in poods). By Baling. | By Spouters. | Casual. | Total. | Average per Well per Day. |
|---|---|---|---|---|---|---|
| Balakhany ... ... ... ... ... ... | 1,000 | 5,244,381 | — | 241,770 | 5,486,151 | 193 |
| Saboontchi ... .. ... ... ... ... | 1,303 | 12,371,495 | - | 113,108 | 12,484,603 | 359 |
| Ramany ... ... ... ... ... .. | 283 | 4,574,167 | 700,000 | 40,072 | 5,314,239 | 702 |
| Bibi-Eybat ... ... ... ... ... ... | 322 | 6,341,911 | 1,558,000 | 39,360 | 7,939,271 | 908 |
| Total ... ... ... ... ... | 2,908 | 28,531,954 | 2,258,000 | 434,310 | 31,224,264 | 395 |
| Total for February, 1913 ... ... | 2,676 | 30,913,420 | 225,608 | 440,144 | 31,579,172 | 435 |

# THE NORTH CAUCASIAN OIL FIELDS, LTD.

## SPLENDID PROGRESS AND A BRIGHT OUTLOOK.

On Wednesday the annual general meeting of the North Caucasian Oil Fields, Ltd., was held at Winchester House, Old Broad Street, E.C., Mr. F. Allen (the chairman) presiding.

The Secretary (Mr. W. A. Turner, F.C.I.S.) having read the notice convening the meeting and the report of the auditors,

The Chairman moved the adoption of the report and accounts, which were reproduced in the last issue of the Review. In doing so he said the amount written off for depreciation for the year was a large sum, but it was the sum which the Russian Government allowed them to write off before arriving at the amount of profits taxable in Russia. They had therefore followed the wise course of writing off at that end an equal amount to that which the Russian Government allowed them to write off at the other end. It was undoubtedly a wise and conservative thing to do, and they hoped to be even more conservative in the future, because in the year 1914 and in the years to come they would write off out of revenue all the oil they used upon the oilfields. Acting on what they believed were prudent lines, they intended to charge all they could to revenue, so as to keep their balance-sheet in a thoroughly healthy state in future. Now, if they turned back for a moment to the year 1912 and its results, and then glanced at the year 1913, they could not help being struck with the sudden move up to prosperity which their company had made. That was to be accounted for by four reasons. First, their company had the good fortune to possess a valuable oil territory ; secondly, it was in possession of ample working capital ; thirdly, it had enjoyed a high price for its oil ; and, fourthly, and by no means least, it was possessed of a brilliant staff on the field in Mr. MacGarvey and his assistants. Taking those four reasons in their order, for 1913 the old plots had yielded the bulk of their production, and in the current year they would also continue to yield the bulk. Mr. MacGarvey's estimate from those plots for the year was a production of 18,000,000 poods. There were 22 wells going down which would be completed by the end of the year, and of those wells a considerable number were already more than 300 sagenes in depth. Some of those would have been in production by now had matters gone normally ; but there had been a certain amount of delay in the delivery of materials, which had held Mr. MacGarvey back, and if in the next two weeks or so shareholders saw a moderate falling off in the weekly oil production they need not be in the least surprised or disturbed by it. They were authorised by Mr. MacGarvey to say that, with the wells that he expected to have coming in up to the end of June, the production from the old plots, which at present was about 40,000 poods per day, might be raised to 60,000 poods per day. That might not sound a very large increase, but when they took it on a daily production it comes to a large figure.

As regarded the new territory, it had turned out very satisfactorily. The purchase was also satisfactory from the point of view that they gave a reasonable price, all adjoining territory having gone up very largely in value since they made the purchase. On that ground they put down three wells, to reach a comparatively shallow sand, and all those three wells had been giving a good production. The quality of the oil that was obtained from that first sand was not all that could be desired. It was not attractive to the refiners ; it carried a considerable amount of paraffin with it, and in the colder months of the year that paraffin was apt to congeal in the pipe-lines, which produced some difficulty in transport. They had, therefore, stopped the production in one of the wells in the Bielik district, and were going down as fast as possible to the lower sands, in order to test them and see whether or not the quality of the oil below was considerably better than in the upper sands. Mr. MacGarvey estimated from the new territory a production for the present year of 7,000,000 poods, which, added to the 18,000,000 poods from the old plots, would make their production for the year 25,000,000 poods. In view of his caution, as a rule, in giving estimates, there was not much doubt that that estimate would be reached, and possibly exceeded. For the first seventeen weeks of the year, the old plots gave a production in round figures of 5,700,000 poods, and the new plots gave 1,500,000 poods, the total for the seventeen weeks being 7,200,000 poods, and, as that worked o at an average of about 22,000,000 poods per annum, there w every prospect that Mr. MacGarvey would keep up to th estimates.

With reference to the price of oil, the Chairman proceeded We have enjoyed in 1913 what might be called an exceedingl good price—an average of just over 40 copecks ; but we mus not look for such a good average this year. Our average so f this year has been 37 copecks, and at present the market is som what beneath that price, and therefore it would be wise, i any ideas that you may form on the matter, if you took th price of oil as somewhat lower than that which ruled in th preceding year. The fourth point, which has brought gre success to this company, has been the brilliant field work by M MacGarvey and his staff, and I think you must realise as muc as we do here how much we are indebted to them all for th work they have carried out in the field. Their drilling work i Russia is second to none. They drill fast and they drill acc rately, and, when looking each week at the drilling returns, on cannot help being surprised to see how very seldom it is, even a great depths, that there is any loss of a tool or anything in th way of fishing or any breaking of casing. There is one announc ment I may make—one which may anticipate questions whic might be put by yourselves—and that is that in July we sha distribute an interim dividend. (Applause.) At the momen I am not in a position to say what the amount will be, but i the dividend is, according to your ideas, a modest one, do no take it as any index of the year's profits ; for this reason, that i keeping to a modest interim dividend we do so in the hope that in good or bad times, we shall never depart from a fixed rate o interim dividend, but shall always maintain it. I now be formally to move : "That the directors' report and account for the year 1913 be, and they are hereby, approved and adopted.

Mr. G. A. Kessler seconded the motion, which was carrie unanimously.

The Chairman then proposed : "That the dividend on th preference shares for the year 1913 and the interim dividend o the ordinary shares be confirmed," and the motion was seconde by Mr. F. Straker and agreed to ; while, on the motion of th Chairman, seconded by Sir Reginald McLeod, K.C.B., it wa resolved : "That a final dividend be paid on the ordinar shares of 2s. per share, making 2s. 6d. for the year, less incom tax."

Sir Reginald McLeod then moved : "That Mr. A. MacGarve and Mr. F. Straker be re-elected directors of this company. In doing so he said : I understand that both these gentleme have been on the board of the company since its inception. I has not always been in as flourishing a condition as it is to-day and I think we are very much indebted to Mr. Straker for th part he took in promoting the reorganisation of the compan and placing it in the very strong financial position in which i stands to-day.

With regard to Mr. MacGarvey, who serves the company o the field, I should rather like, if it were possible, that som very emphatic expression of your appreciation should go out to him. Here at this table we are in touch with the shareholders, and Mr. Straker can appreciate your expression of goodwill ; but to a man who is serving the company at so great a distance, and under conditions which are perhaps from time to time full of difficulty and anxiety, without the support of colleagues and without being in immediate sympathy with the owners of the shares, one feels that some rather cordial expression of gratitude should be offered so that it can be remitted to him as a direct expression of the views of the meeting. Mr. MacGarvey has managed our affairs in the Grosny district in such a way as to cause, I think, the envy of our competitors. He has been brilliantly successful. He is a great organiser and a great controller. I therefore have the utmost pleasure in moving the re-election of the two gentlemen I have named.

Mr. A. W. Kerly, J.P., seconded the resolution, remarking that he entirely agreed with Sir Reginald McLeod as to the good services of Mr. Straker and the managing director.

The motion was unanimously agreed to, and, on the proposition of Mr. John Gilling, seconded by Mr. Meyerstein, Messrs. McAuliffe, Davis & Hope were re-appointed auditors.

Mr. E. Hume-Schweder proposed a vote of thanks to the chairman and directors, which was seconded by Mr Loebl, and unanimously accorded.

The Chairman, in acknowledging the compliment, said he took it that the intention of the shareholders was to include the staff, and, that being so, the directors would telegraph out to them the fact that a hearty vote of thanks had been accorded to them for their services.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & CO., 61, St. Mary Axe, E.C.

May 22nd, 1914.

The official prices of Refined Petroleum have again een reduced $\frac{1}{4}$d. per gallon, quotations now being :— ussian, 7d. ; American, 7$\frac{1}{4}$d. ; American Water Vhite, 8$\frac{1}{4}$d.; Roumanian, 6$\frac{3}{4}$d. ; Galician, 6$\frac{3}{4}$d.

### LUBRICATING OILS.

There are no further changes to report, the prices emaining as follows :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL

quoted 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

The market quotation is 70s. per ton, in bulk, ex harf.

### GAS OIL.

The current price is 3$\frac{1}{4}$d. per gallon, in bulk, ex wharf.

### MOTOR SPIRIT.

The best quality is quoted 1s. 9d. per gallon retail in ondon, and the second quality 1s. 7d. per gallon.

### TURPENTINE.

The American Turpentine market is considerably rmer, and higher prices are quoted :—for Spot e price is 33s. 6d. ; June/August, 33s. 10$\frac{1}{2}$d.; September/December, 34s. 6d.

## LIVERPOOL.

May 21st.

Petroleum oils have a steady sale, and lower urrencies are asked for Refined, 8$\frac{1}{4}$d. being now quoted r Russian, and 8d. to 9d. per gallon for American. Petroleum spirit moves off fairly well.

## AMERICA.

NEW YORK, May 21st.

Refined, in cases, is still quoted at 11·10 ; Standard hite, 8·60 ; Credit balances, 1·90.

PHILADELPHIA, May 21st.

Standard White is quoted at 8·60.

## RUSSIA.

BAKU, May 19th.

The tendency of benzine is lower, that of gas oil and bricating oils steady. Crude oil is quoted at 34$\frac{3}{4}$–35$\frac{1}{4}$ pecs per pood spot. Kerosene, 45$\frac{1}{2}$–46 copecs. Resiuals, 33$\frac{1}{4}$–34$\frac{1}{4}$ copecs.

## ROUMANIA.

May 19th.

The export of petroleum is for the moment very stricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| ude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·45 |
| ,, ,, ,, | Moreni ... | 7·50–7·70 |
| ,, ,, ,, | Tzintea ... | 6·00–7·00 |
| ,, ,, ,, | Policiori... | 6·00 |
| ,, ,, ,, | Bordeni ... | 9·00–9·25 |
| ,, ,, ,, | Bana ... | 10·00–10·50 |
| ,, ,, ,, | Baicoi ... | 8·00–9·00 |
| raffin ... ... ... | ... ... | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| efined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| nzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| siduals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| s Oil... ... ... ... ... ... | 8·00 |

## GERMANY.

HAMBURG, May 20th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

May 19th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date May 21st, as follows :—

There is no change in the position of prices this week, and makers' quotations remain as under :—

| | | | | | |
|---|---|---|---|---|---|
| Ic | 18$\frac{3}{4}$ × 14 | 124 sheets | 110 lbs. ... | 13/- | per box. |
| Ic | 20 × 10 | 225 ,, | 156 ,, ... | 18/3 | ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

## IMPORTS OF PETROLEUM PRODUCTS.

(*Concluded from page 596.*)

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| | SWANSEA— | | | |
| 15 | Burgess & Co. ... .. | Lub. Gr. | 810 | Hamburg |
| | ABERDEEN— | | | |
| 15 | R. C. Reid & Co. ... ... | Lub. | 1,200 | ,, |
| | DUNDEE— | | | |
| 14 | D. Alexander & Sons ... | ,, | 2,000 | ,, |
| | GRANGEMOUTH— | | | |
| 11 | Jas. Currie & Co. ... ... | ,, | 5,360 | ,, |
| | GLASGOW— | | | |
| 12 | Abram & Addie ... ... | ,, | 6,110 | Mobile |
| 13 | Clyde Shipping Co. ... ... | ,, | 2,790 | Antwerp |
| 14 | Donaldson Bros. ... ... | ,, | 40,780 | Baltimore |
| 14 | ,, ... ... | M. Colza | 1.200 | ,, |
| 18 | Clyde Shipping Co. ... ... | Lub. | 250 | Ghent |
| | LEITH— | | | |
| 9 | Jas. Currie & Co. ... ... | ,, | 360 | Hamburg |
| 14 | ,, ... ... | ,, | 1,200 | ,, |
| 18 | ,, ... ... | ,, | 600 | ,, |
| 18 | G. V. Turnbull & Co. ... | Lub. Oil and Gr. | 35,250 | Philadel. |
| 18 | ,, ,, .. | Lub. | 2,450 | Baltimore |
| | BELFAST— | | | |
| 14 | Anglo-American Oil Co. ... | Lamp | 888,730 | New York |
| | DUBLIN— | | | |
| 12 | Anglo-American Oil Co. ... | ,, | 904,210 | ,, |
| 13 | P. Murphy & Co. ... .. | Lub. | 140 | Hamburg |
| | CORK— | | | |
| 14 | P. Murphy & Co. ... ... | ,, | 320 | ,, |
| | | | 15,288,390 | |
| | Add— | | | |
| | LONDON— | | | |
| 24/4 | British Petroleum Co. ... | Fuel | 38,370 | Port Arthur |
| 1/5 | Lubricating & Fuel Oils Co. | Lub. | 780 | Batoum |
| 18/5 | L. Freeland ... ... ... | Lub. Gr. | 260 | Antwerp |
| | Deduct— | | | |
| | LONDON— | | | |
| 18/4 | Anglo-Saxon Petroleum Co. | Crude | 5,190 | Pt. Fortin |
| 24/4 | British Petroleum Co. ... | Gas | 42,450 | Port Arthur |
| | MANCHESTER— | | | |
| 8/5 | British Petroleum Co. ... | Lamp | 25,970 | ,, |
| 8/5 | ,, ,, ... | ,, | 5,810 | Batoum |
| | BRISTOL— | | | |
| 18/3 | British Petroleum Co. ... | ,, | 17,530 | Sabine |
| 24/3 | Anglo-American Oil Co. ... | Gas | 5,900 | New York |

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED MAY 18TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| May. | London— | | | |
| 12 | British and Foreign Wharf | Lub. | 800 | Antwerp |
| 12 | Port Authority | ” | 6.200 | Hamburg |
| 12 | ” | ” | 240 | ” |
| 12 | Callender's Cable Co. | ” | 5,000 | Antwerp |
| 12 | Bennett's Haulage, etc., Co. | ” | 3,020 | Philadel. |
| 12 | J. W. Cook & Co. | ” | 2,200 | ” |
| 12 | Anglo-American Oil Co. | ” | 25,400 | ” |
| 12 | Pfeifer & Co. | ” | 1,630 | ” |
| 12 | Claridge's Pat't Asphalt Co. | ” | 2.680 | Baltimore |
| 12 | Anglo-American Oil Co. | ” | 58,960 | New York |
| 12 | J. Thompson | ” | 3.390 | ” |
| 13 | Vacuum Oil Co. | ” | 29,020 | ” |
| 13 | Mercantile Lighterage Co. | ” | 1,600 | Philadel. |
| 13 | Port Authority | ” | 200 | Hamburg |
| 13 | E. G. Boize | Lub. Oil and Gr. | 2,670 | ” |
| 14 | Bowring Petroleum Co. | Lamp | 551,600 | P. Mexico |
| 14 | Page, Son & East | Lub. | 520 | Antwerp |
| 14 | Leach & Co. | ” | 120 | Ghent |
| 15 | Schliemann's Oil, etc., Co. | Lub. Oil and Gr. | 7,680 | Hamburg |
| 15 | Port Authority | Lub. | 500 | Philadel. |
| 16 | J. Spurling | Lub. Gr. | 240 | New York |
| 16 | Sir W. A. Rose & Co. | Lub. | 200 | Antwerp |
| 16 | G. W. Sheldon & Co. | ” | 600 | Philadel. |
| 16 | Asiatic Petroleum Co. | Benzine | 2,134,500 | Balek Pappan |
| 16 | Anglo-American Oil Co. | ” | 1,093,580 | Novorossisk |
| 16 | ” ” | Naphtha | 929,940 | ” |
| 16 | Burmah Oil Company | Benzine | 160 | Rangoon |
| 16 | Asiatic Petroleum Co. | ” | 1,094.800 | ” |
| 18 | E. G. Boize | Lub. Oil and Gr. | 1,130 | Hamburg |
| 18 | Lubricating & Fuel Oils Co. | Lub. | 4,100 | ” |
| 18 | Port Authority | ” | 4,740 | ” |
| 18 | Langley, Smith & Co. | ” | 13,610 | New York |
| 18 | Mercantile Lighterage Co. | ” | 1,200 | ” |
| | Liverpool— | | | |
| 12 | Anglo-American Oil Co. | ” | 271,950 | ” |
| 13 | ” ” | ” | 40,000 | Baltimore |
| 13 | A. Hopps & Sons, Ltd. | ” | 29,320 | ” |
| 13 | D. Owen & Son | ” | 2,590 | ” |
| 13 | Liverpool Warehousing Co. | ” | 600 | New York |
| 13 | Pickford's | Lub. Oil and Paste | 250 | Hamburg |
| 14 | Meade-King, Robinson & Co. | Lub. | 2,800 | New York |
| 14 | ” ” | ” | 5.200 | Baltimore |
| 14 | ” ” | ” | 14,360 | Philadel. |
| 14 | ” ” | Lub. Gr. | 2,600 | Baltimore |
| 14 | ” ” | M. Colza | 15,840 | ” |
| 14 | F. Guest | Lub. | 5,280 | ” |
| 14 | F. Schofield & Co. | ” | 10,400 | ” |
| 14 | Burnaby & Chantrell | ” | 2,610 | ” |
| 14 | White Star Line | ” | 3 000 | New York |
| 14 | W. B. Dick & Co. | ” | 5,800 | ” |
| 14 | Worthington & Boler | ” | 8,000 | ” |
| 14 | Valvoline Oil Co. | ” | 21,150 | ” |
| 14 | ” | Lub. Gr. | 210 | ” |
| 14 | Anglo-American Oil Co. | Lub. | 86,160 | ” |
| 14 | R. Crooks & Co. | Lub. Gr. | 100 | ” |
| 14 | Vacuum Oil Co. | ” ” | 720 | ” |
| 14 | ” | Lub. | 31,340 | ” |
| 15 | Worthington & Boler | ” | 800 | ” |
| 15 | ” ” | ” | 10,880 | Philadel. |
| 15 | Bowring Petroleum Co. | ” | 1,040 | ” |
| 15 | Crew, Levick & Co. | ” | 71,160 | ” |
| 15 | ” | M. Colza | 6,250 | ” |
| 16 | Bowring Petroleum Co. | Lub. | 1,870 | ” |
| 16 | Anglo-American Oil Co. | ” | 17,600 | ” |
| 16 | ” ” | Lub. Gr. | 2,000 | ” |
| 16 | Bennett's Haulage, etc., Co. | Lub. | 2,860 | ” |
| 16 | Fellows, Morton & Clayton | ” | 4,230 | ” |
| 16 | F. Schofield & Co. | ” | 2,600 | Baltimore |
| 16 | Anglo-American Oil Co. | Lamp | 1,182,780 | New York |
| 16 | Wilson, Son & Co. | ” | 80 | Rotterdam |
| 18 | Pickford's | Lub. Oil and Paste | 810 | Hamburg |
| 18 | C. W. Field | Lub. | 410 | Antwerp |
| 18 | Huxley & Co. | ” | 210 | Ghent |
| 18 | Yeoward Bros. | ” | 40 | Lisbon |
| 18 | Meade-King, Robinson & Co. | Lub. Gr. | 1,160 | New York |
| 18 | F. Schofield & Co. | Lub. | 3,000 | ” |
| 18 | Anglo-American Oil Co. | ” | 102,960 | ” |
| 18 | Vacuum Oil Co. | Lub. Gr. | 5,000 | ” |
| 18 | ” | Lub. | 29,080 | ” |
| | Liverpool— | | | |
| 18 | American Line | Lub. Oil and Gr. | 1,400 | Philadel. |
| 18 | ” | M. Colza | 300 | ” |
| 18 | Bramwell, Fern & Co. | Lub. | 14,410 | ” |
| | Bristol— | | | |
| 5 | Pickford's | Lub. Oil and Gr. | 1,540 | Hamburg |
| 12 | Anglo-American Oil Co. | Fuel | 576,680 | Kustendje |
| 12 | W. G. Clarke | Lub. | 630 | Antwerp |
| 12 | J. & R. Bush | ” | 22,600 | New York |
| 12 | Asiatic Petroleum Co. | Benzine | 696,300 | P. Samboe |
| 14 | J. & R. Bush | Lub. | 240 | Antwerp |
| 14 | Heaton & Co. | ” | 430 | ” |
| 14 | B. Perry & Sons | Lub. Gr. | 220 | ” |
| 14 | Ford & Canning | Lub. | 4,070 | New York |
| 14 | C. Hill & Sons | ” | 8,280 | ” |
| 15 | F. F. Fox & Co. | ” | 240 | Hamburg |
| 15 | Anglo-Bosphorus Oil Co. | ” | 870 | ” |
| 15 | ” ” | Lub. Gr. | 80 | Antwerp |
| 15 | First Anglo-Russian Oil Co. | Lub. | 820 | ” |
| 16 | ” ” | Lub. Gr. | 600 | ” |
| 16 | Asiatic Petroleum Co. | Benzine | 208,400 | Kustendje |
| 16 | Pickford's | Lub. Oil and Gr. | 730 | Hamburg |
| 18 | J. & R. Bush | Lub. | 69,880 | New York |
| | Barrow— | | | |
| 15 | Asiatic Petroleum Co. | Benzine | 1,034,300 | P. Samboe |
| | Cardiff— | | | |
| 16 | Bristol Steam Navig. Co. | Lub. Oil and Gr. | 150 | Hamburg |
| | Goole— | | | |
| 13 | Goole Steamship Co. | Lub. | 240 | ” |
| 16 | ” ” | ” | 310 | Rotterdam |
| | Gloucester— | | | |
| 13 | Bristol Steam Navig. Co. | ” | 1,200 | Hamburg |
| | Grimsby— | | | |
| 15 | J. Sutcliffe & Son | ” | 400 | ” |
| | Harwich— | | | |
| 8 | Great Eastern Railway | ” | 210 | Antwerp |
| 12 | ” ” | ” | 840 | ” |
| 14 | ” ” | ” | 200 | ” |
| 16 | ” ” | ” | 160 | ” |
| | Hull— | | | |
| 13 | T. Wilson, Sons & Co. | ” | 24,960 | New York |
| 14 | Wilson's & N. E. Railway | ” | 5,480 | Hamburg |
| 14 | Hull & Netherlands Steamship Co. | ” | 100 | Rotterdam |
| 16 | ” ” | Crude | 1,600 | ” |
| 16 | Wilson's & N. E. Railway | Lub. | 2,720 | Antwerp |
| 16 | W. Gilyott & Co. | ” | 39,600 | New York |
| 18 | Wilson's & N. E. Railway | ” | 140 | Hamburg |
| 18 | ” ” | ” | 40 | Ghent |
| 18 | ” ” | ” | 120 | Antwerp |
| | Manchester— | | | |
| 14/4 | British Petroleum Co. | Gas | 3,470 | Port Arthur |
| 14/4 | ” ” | Fuel | 2,130 | ” |
| 12 | Liverpool Storage Co. | Lub. | 2,250 | Philadel. |
| 12 | J. T. Fletcher & Co. | ” | 40 | Antwerp |
| 13 | Anglo-American Oil Co. | ” | 972,350 | New York |
| 13 | Diamond Lubricating Co. | ” | 2,500 | Philadel. |
| 13 | McLiners, Ltd. | ” | 2,640 | ” |
| 14 | Bramwell, Fern & Co. | ” | 16.160 | ” |
| 14 | ” ” | ” | 1,300 | ” |
| 14 | Meade-King, Robinson & Co. | ” | 22,320 | ” |
| 14 | F. Schofield & Co. | ” | 3,770 | New York |
| 15 | Crew, Levick & Co. | ” | 8,660 | Philadel. |
| 15 | ” | M. Colza | 1,650 | ” |
| 15 | Statter & Co. | Lub. Oil and Gr. | 1,200 | ” |
| 15 | Anglo-American Oil Co. | Lub. | 4,100 | ” |
| 15 | McLiners, Ltd. | ” | 5,200 | ” |
| 18 | Anglo-American Oil Co. | Lamp | 1,182,780 | New York |
| | Middlesbrough— | | | |
| 15 | E. Harris & Co. | Lub. | 200 | Antwerp |
| | Plymouth— | | | |
| 13 | T. Nicholson & Co. | ” | 90 | Hamburg |
| | Newport— | | | |
| 14 | M. Jones & Co. | ” | 80 | Antwerp |
| | Newcastle— | | | |
| 13 | Tyne-Tees Steamship Co. | ” | 1,960 | ” |
| 13 | ” ” | ” | 960 | Hamburg |
| | Southampton— | | | |
| 11 | Bowring Petroleum Co. | Lamp | 448,000 | P. Mexico |

(*Continued on page* 595).

# The Petroleum Review.

*Founded by* PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Government and its Oil Fuel Supplies.

THE policy of the Government in regard to the securing of ample supplies of oil fuel for its requirements, which policy was outlined by the First Lord of the Admiralty last July, in connection with the Navy estimates, has taken a turn during the past few days which has come with startling suddenness to every oil man. But perhaps the policy itself comes with more amazement than the suddeness with which it has been brought before the public ken. The sinking of two millions of British capital into the Persian oilfields is at first sight nothing less than absurd, but when the proposition is the more closely considered its unreasonableness becomes the more pronounced. We have no sympathy with the Government in its general policy to become its own independent owner and producer of oil fuel, but even were we agreed with the necessity for such a policy, we should certainly raise our voice of protest against the spending of such a gigantic sum in any one field, more especially when geographical situation is by no means a strong point. We wholly agree with Mr. Churchill in his statement that "safety and certainty n oil supply lie in variety (of sources) and in variety alone": we disagree with him *in toto* in the manner in which it is apparently sought to carry out this principle.

◆

### The Calgary Oil Boom.

CANADA is in the throes of another oil boom, and to-day thousands of over-anxious investors are rushing to Calgary in order to make fortunes out of oil. There is usually some real and primary reason for the creation of a boom, whether in oil or any other commercial commodity, but in the case of Calgary, we must admit, little or no reason is forthcoming. Oil has, we know, been truck in a well—the Dingham—and the possibilities are that something of a field may be eventually opened up in this part of Western Canada, but why there hould be a mighty rush to the spot and all the vailable ground for miles around at fabulous prices we cannot imagine. Booms such as the one through which Calgary is passing always do immense injury to the proper development of the petroleum industry, for when the boom period has passed away its place is taken by impatient pessimism, and as a consequence the careful and proper development of a prospective oilfield is impeded. Of a truth, Canada sadly wants new sources of home oil supply, and we can only hope that the Calgary district will live up to the expectations held out for it. We are seriously afraid, however, that before there dawns the period of success, many ignominious failures will have to be recorded.

◆

### The Oilfields of Mexico.

THE Anglo-American arrangement for the protection of the rights of the owners of oil properties in the Mexican fields is now more than a suggestion, for last Tuesday, by an exchange of notes between Sir Cecil Spring Rice and the United States Government, it was formally concluded, Sir Edward Grey having previously given his approval to it. The object of the agreement is to preserve the *status quo* existing prior to April 21st and to prevent "claim jumping." It has been feared that oil properties of very great value might be declared forfeited because of the inability of the lessees to make the payments on the exact day provided for in the lease, or for some other technical default, and that eventually the British and American Governments would be compelled to support the claims of their nationals for the restoration of the properties. With both Governments, however, agreeing to respect the *status quo*, neither General Huerta nor the Constitutionalists will be able to deprive British and American concessionaires of their property.

◆

### California and its Petroleum Industry.

IF only the crude oil output of the Californian fields is continued at its present level to the end of the year, the total production for the twelve months will be several million barrels ahead of the figures for 1913, for it will by far exceed 100,000,000 barrels. It must be recollected, however, that during many months of last year the State was producing to its full capacity, but so far this year, though the monthly output has been so large, several hundred wells have been and are still shut down. With the opening of these, the crude oil output would be very materially increased, but at the moment such a step would be disastrous in view of the supplies already above ground and the absence of additional markets to take the greater production. The crude oil output of California may be taken at approximately 280,000 barrels per day, and under the arrangements recently concluded about one-half of this enormous production will in future be under the control of the interests represented by the British

Union Oil Company and the Shell-Royal Dutch group. Though it is too late in the day to protest, local oil men view the passing of such a large production into the hands of "foreigners" with no degree of joy.

## SITUATION VACANT.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended May 23rd was 119,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended May 24th was 341,705 poods, or about 5,511 tons. The total production for the year from January 14th to May 24th was 5,325,400 poods, or about 85,894 tons. The total production for the corresponding period last year was 5,544,240 poods, or about 89,423 tons. Price of crude oil at Baku is now 36 copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended May 23rd was 26,653 poods, or 414 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended May 24th was 102,900 poods.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended May 23rd was 120,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended May 23rd was 18,977 poods (306 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended May 23rd was 10,250 poods (165 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended May 24th was 10,383 poods, or 167 tons.

BIBI-EIBAT OIL COMPANY, LTD.—Production for week ended May 24th, 88,200 poods, or 1,423 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended May 23rd, 95,219 poods, or 1,536 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The total production for week ended May 26th was 347,436 poods, or 5,604 tons. Corresponding period last year, 2,074 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended May 23rd was 5,045 poods, or 81 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended May 23rd was 18,587 poods (300 tons).

SHAGIRT (CHELEKEN) OIL.—Estimated production of crude oil for week ended May 9th was 665 poods (11 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended May 23rd was 1,680 poods, or 27 tons.

URAL CASPIAN OIL CORPORATION, LTD.—Production for the week ended May 19th, 164,400 poods, or 2,652 tons.

CHELEKEN OILFIELDS, LTD.—Estimated production for the fortnight ended May 23rd, 1,707 tons.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO MAY 25th, 1914.

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IN GALLONS.

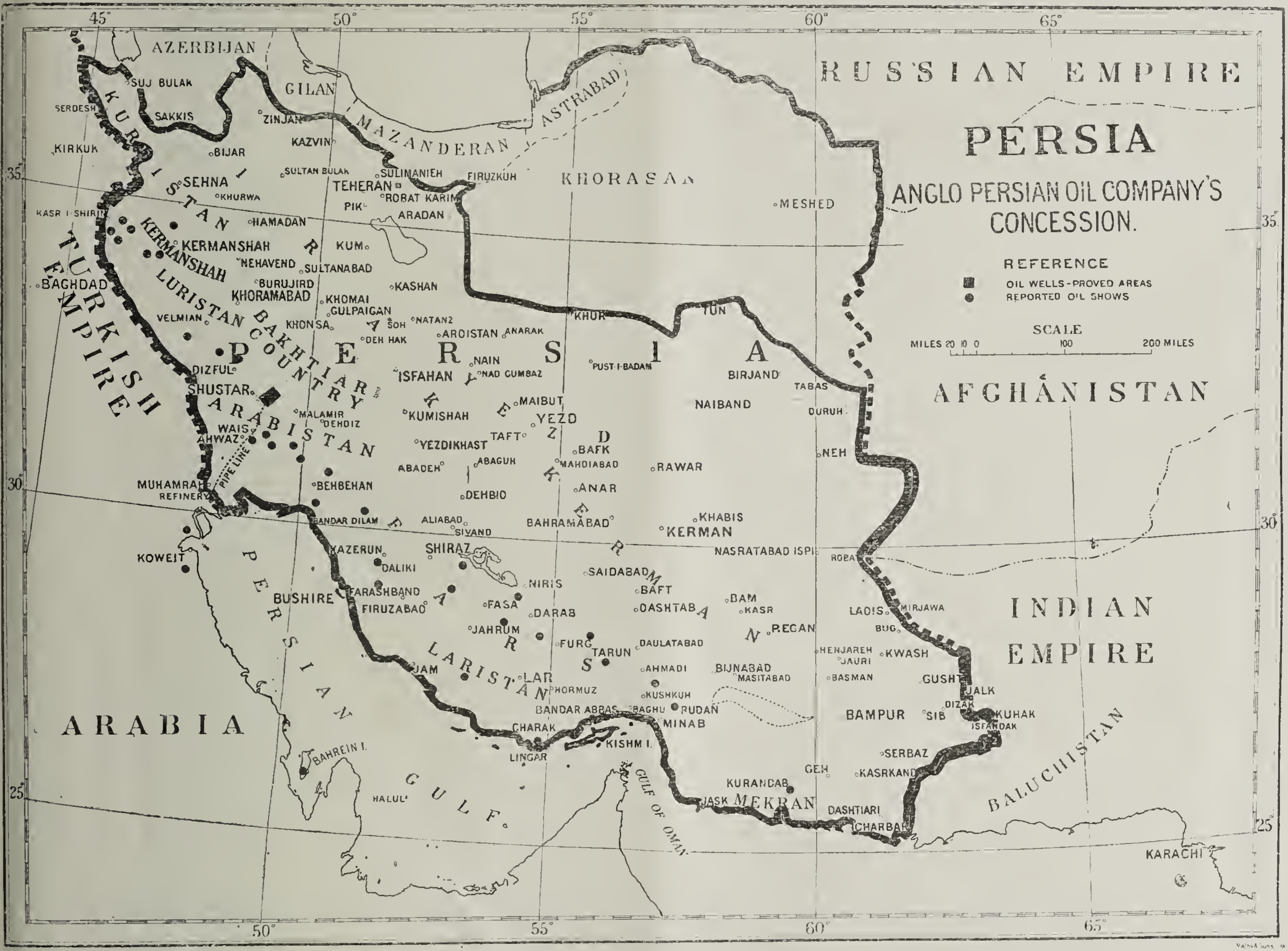
| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. | Since May 18. | From Jan. 1. |
| Belgium .. | — | — | 20,250 | 305,440 | — | — | — | — | — | 32 22 | — | — | — | 1,350 | 20,250 | 339, |
| Canada .. | — | — | — | 4,400 | 2,720 | 47,300 | — | — | — | — | — | — | — | — | 2,720 | 51 |
| Dutch Indies | — | — | — | — | — | — | — | — | — | 21,689,260 | — | 83,400 | — | 1,748,910 | — | 23,521 |
| Germany . | — | 29,250 | 36,390 | 1,176 270 | — | — | — | — | — | — | — | — | — | — | 36,390 | 1,205, |
| Holland .. | — | — | 120 | 3,610 | — | — | 127,000 | 182,000 | 51,100 | 3,364,280 | — | — | 2,940 | 11,210 | 181,160 | 3,561, |
| Mexico .. | — | 3,872,570 | — | 11,800 | — | — | — | — | — | 1,218,860 | — | 3,668,710 | — | 800 | — | 8,772, |
| Roumania .. | 1,271,000 | 7,659,820 | — | — | — | 961 440 | — | — | 207,200 | 1,825,850 | — | 2,361,470 | — | — | 1,478,200 | 12,808, |
| Russia . | — | 2,909,650 | 1,880 | 2,601,550 | — | — | — | — | — | 8,295,400 | — | — | — | 630 | 1,880 | 13,867. |
| U.S.A. .. | 1,925,800 | 44,907,350 | 535,850 | 20,527,510 | — | 91,270 | 728,000 | 28,834,260 | — | 5,490,500 | — | 5,603,330 | 5,200 | 248,890 | 3,194,850 | 105,694, |
| Other Countries | — | 3,770 | 630 | 140,170 | - | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 630 | 149. |
| | 3,196,800 | 59,382,410 | 595 120 | 24 770,750 | 2,720 | 1,100,010 | 855,000 | 29,017,720 | 258,300 | 41,916 580 | — | 11,721,060 | 8,140 | 2,011 790 | 4 916 080 | 169,911, |

# The British Government and Its Oil Fuel Supply.

## AGREEMENT WITH THE ANGLO-PERSIAN OIL COMPANY.

IN the form of a Blue Book, the agreement which the Government has made with the Anglo-Persian Oil Company, Ltd., and which involves the payment of the gigantic sum of £2,000,000, has been issued this week.

The subject is of such immense interest to the petroleum industry at large that it is dealt with in our leader columns by Dr. P. Dvorkovitz. It is therefore unnecessary here to do more than quote the agreement and to add that the Blue Book which contains this also gives extracts from speeches by the First Lord of the Admiralty in regard to oil fuel for Admiralty requirements, together with the report of the Commission which was sent last year to report upon the resources of the Anglo-Persian ·Oil Company.



It may be of interest here to state that the Commission consisted of Rear-Admiral Sir Edmond J. W. Slade (chairman), Professor Cadman, Mr. E. R. Blundstone, Mr. J. C. Clarke (Secretary to the Admiralty), and Mr. E. H. Pascoe, the latter gentleman (representing the Geological Survey of India) joining the Commission upon its arrival in Persia.

The Agreement, which bears the date of May 20th, 1914, provides that His Majesty's Government shall subscribe to the capital of the Company as follows:—Ordinary shares, £2,000,000; preference shares, £1,000; total share capital to be held by Government, £2,001,000; first debentures, ranking *pari passu* with existing debentures, £199,000; total Government subscription, £2,200,000.

The company undertake, prior to the Government shares being subscribed for, to pass the necessary resolution for the addition to their capital of £2,000,000 in ordinary shares, and for the detailed amendments of the articles of association of the company as specified in the schedule to the agreement.

The preference shares and debentures fall within previous authorisations.

The total share capital and debentures of the company will be as follows:—Existing ordinary shares, £1,000,000; existing preference shares, £999,000; total share capital held other than by Government, £1,999,000: total share capital to be held by Government, as shown above, £2,001,000; total proposed share capital, £4,000,000; existing debentures, £600,000; debentures to be held by Government, £199,000; aggregate of proposed shares, capital, and debentures, £4,799,000.

The preference shares (6 per cent., participating to the extent of 2 per cent. in dividends after payment of 6 per cent. on ordinary shares) have the same voting power as ordinary shares. The Government will thus hold a majority of 2,000 share votes. An option has been secured to take over existing debentures when redeemable, viz., December 31st, 1920.

The agreement has been signed and sealed and is therefore binding upon all parties subject to the due performance of the undertakings in Clause 1 of the agreement, viz., on the part of the company, the passing of the resolutions referred to above and the entering into of a contract with the Admiralty for the supply of oil fuel ; and on the part of His Majesty's Government, the due provision by Parliament of the funds necessary to give effect to the agreement. The company are issuing notices convening a meeting of shareholders. In regard to Parliamentary provision, the necessary Financial Resolution and Money Bill will be presented forthwith, in order that the Government may be able to authorise immediate steps to be taken by the company to proceed with development.

The agreement and the amended articles of association provide for the appointment of two *ex officio* directors by the Treasury, one of whom will be chosen to represent the Admiralty directly.

To enable Government interests in the company to be duly protected but with the minimum of interference with the conduct of its ordinary business, a power of veto over all acts of the board and committees of the company and its subsidiaries is conferred upon the two *ex officio* directors, with right secured to the other directors to appeal to His Majesty's Government as represented by the Treasury and the Admiralty. His Majesty's Government do not, however, surrender their right to be represented on the Board by a larger number of directors proportionate to their share in the company, if such a step should become necessary at any future time.

His Majesty's Government have given an assurance to the company that this veto will be exercised with due regard to the financial and commercial interests of the company, and only in respect of matters of general policy, such as the supervision of the activities of the company as they may affect questions of foreign and military policy, any proposed sale of the undertaking or change of status of the company, and new exploitation and other matters directly bearing on the fulfilment of current contracts for the Admiralty.

The capital furnished by His Majesty's Government will be issued in instalments as required, and is intended to provide for such development of resources and extension of facilities as may be necessary to secure an abundant quantity of oil for naval purposes over a term of upwards of 20 years. The company have furnished full particulars of all pertinent matters relating to their financial position and prospects as well as preliminary estimates of expenditure and a scheme of development. No provision is included in the Parliamentary Bill for the exercise of the option of redemption of debentures in 1920 referred to above, which will have to be submitted to Parliament if and when His Majesty's Government decide to redeem the debentures. Purchases of oil for the Admiralty will continue to be a charge to naval votes.

The report of Admiral Slade's Commission indicates that, with judicious working and control, the company's concession may be expected to produce abundant supplies of oil over a long period of years. The concession is a very large one, with good indications of oil in many places other than those at present being worked, and existing wells have proved productive and of good durability. The Admiralty has for some years past kept touch with the development of exploitation in this region, and has had the advantage also of considering the evidence on this subject given before the Royal Commission on Fuel and Engines, of which Admiral of the Fleet Lord Fisher of Kilverstone was chairman. The evidence is confirmed by the investigations of Admiral Slade's Commission. As shown in paragraph 35 of the report of the latter Commission, some of the company's wells have been "throttled down" to keep the production within the limits of current requirements and the capacity of the existing pipe-line, and it may be added that the policy adopted in the development of the field has been to drill the wells only to such depth as to prove the continuity of the oil-bearing formation without actually bringing them into production. The statistics of production up to September, 1913, given in the report, simply indicate the limited quantity of oil which has been allowed to flow from a few of the wells, and are in no sense a measure of what the company's output might be expected to amount to if the whole of the existing wells were brought into full productivity, still less of the possible maximum output when additional wells are drilled. Information has quite recently come to hand showing that one of the wells from which supplies have long been drawn has suddenly begun to spout with great violence, with the result that this well alone yields more oil than the present pipe-line is capable of transporting. It has, therefore, become necessary, in order to minimise the loss of oil, to undertake very considerable extension of the transport, storage, and refining facilities with the least possible delay. The favourable anticipation expressed by Admiral Slade's Commission as to the aggregate resources of the company's concession has thus already received considerable support.

The supply contract will be regarded in the public interests as confidential, for reasons which have been frequently explained to Parliament. It may be stated, however, that provision is made therein for the supply for a term of years on a favourable scale of price of a reasonable proportion of the total estimated annual requirements of the Admiralty on the present basis of policy of oil consumption and with due allowance for expansion. The contract is for oil only, and the Admiralty will make its own arrangements for transport. Options of increase of quantity and of variation of description are provided for to meet possible contingencies. The Admiralty has been taking moderate supplies from Persia for some time past, and is satisfied that the oil will prove to be of good quality for naval purposes.

The advantages secured by the use of oil fuel in His Majesty's navy, based upon Admiralty experience, and the opinions of the Royal Commission on that subject, have been stated to Parliament by the First Lord of the Admiralty in the debate on July 17th, 1913, on the navy estimates of 1913–14, on March 2nd, 1914, in the discussion of the supplementary navy estimates of that year, and on March 17th, 1914, in introducing the navy estimates for 1914–15. Those statements also included particulars of the present policy of the Admiralty in regard to the extent of the use of oil fuel and the arrangements for its supply.

In the statements referred to it was pointed out that according to present experience the superiority of oil fuel over coal is most marked in ships of a certain type, *e.g.*, light cruisers and destroyers, in which the use of oil gives decided advantages in design, first cost, economy of upkeep, and in personnel. Experience in the use of oil fuel in ships of the largest size will be gained in due course when the five battleships of the 1912–13 programme, which burn oil only, are commissioned. With the further engineering development of internal combustion engines it may be expected a greater economy in oil consumption will be realised. Seeing, however, that at present most of the larger fuel-consuming units of His Majesty's fleet still use coal, and will continue to do so in the immediate future, the latter fuel will continue to form the principal combustible in use in His Majesty's navy for some time to come. Oil fuel is, however, of very great importance, and the proportion that the amount consumed bears to the total quantity of fuel used is an increasing one. Experiments are being carried out by numerous investigators to arrive at the most economical method of extracting oil from shale and coal. It is hoped, therefore, that when the use of oil in His Majesty's service shall be so extended that it will form the major part of the fuel used, instead of the minor part as at present, the production and commercial utilisation of oil and other products of coal and shale will have reached such a position that the oil fuel so obtained will supplement natural petroleum to a greater extent than is at present the case. It would then be practicable to meet a portion of the increased demand from these sources.

The whole circumstances of the supply of oil fuel have been very carefully investigated by the Admiralty, with the valuable aid of the Royal Commission. The situation has been considered from the point of view both of the amounts of natural petroleum that may be reasonably expected to be obtainable and of the possibility of the increased quantities that may be available from the sources referred to in paragraph 9.

The quantity of oil fuel that is used by His Majesty's navy is indeed only a small proportion of the world's total production of petroleum oil, but it must be remembered that not all oil products are suitable for use in His Majesty's ships, nor is there as a rule at any given moment any large quantity of suitable oil immediately available on the market, and what there is is liable, particularly at times of political stress, to large fluctuation of price. There is also the possibility of restriction of supply, whether natural or artificial, to be guarded against, and therefore, in order to place the country in a position of security as regards the supply of oil fuel, it is necessary to provide that some considerable portion of the Admiralty's annual requirements shall come from a source which shall be as free as possible from these disturbing influences.

The policy of the Admiralty with regard to the provision of oil is to spread its contracts as much as possible over widely separated fields. Thus in time of war if some areas should be closed others will remain open. But while it is not desirable to draw all our supplies from one source, it is essential that the fields over which His Majesty's Government will have control shall be so developed that in times of emergency they will be able to supply at short notice any deficiencies that may arise through failure of deliveries elsewhere. By taking over such control the Admiralty is only extending the policy which has been adopted with regard to other articles of prime necessity to the State in time of war, *e.g.*, ships and munitions of war, and it is only by assuming such control that the State can effectively ensure that supplies shall always be forthcoming in times of emergency, and that the prices in such cases shall not be artificially inflated by interested producers and marketing agencies. It must also be borne in mind that foreign navies are on the road to become large consumers of oil, and that in the course of time they will be entering the market for increased quantities, and competing still more keenly with His Majesty's Government for prompt supplies. This will probably have the effect of inflating prices or reducing available supplies, and for this reason alone it is necessary to make provision now to safeguard the position.

At the present time the production and distribution of petroleum oil is fairly well distributed among a number of companies. There is, however, an evident tendency for the oilfields of the world and the marketing of their products to fall more and more under the control of a comparatively few large concerns. To a great extent this is probably unavoidable. The policy of amalgamation is founded on considerations of expediency similar to those which induce a large oil consumer to distribute orders as widely as possible, viz., greater security of supply, in order that a possible shortage in one direction may be counterbalanced by abundance elsewhere.

A large consumer like the Admiralty, with the national interest of naval defence in its keeping, cannot, however, place itself in a position of dependence for vital supplies upon a few large companies whose interests are necessarily cosmopolitan and financial, although the Admiralty may properly place a reasonable portion of its contracts in the hands of such organisations, admittedly efficient, and possessing great resources. It is important and essential in naval interests to secure that at least one large British oil company shall be maintained, having independent control of considerable supplies of natural petroleum, and bound to the Government by financial and contractual obligations. Such an arrangement can hardly fail to have its effect not merely on the supplies directly so obtained, but on the terms and conditions on which the whole of the Admiralty's requirements will be met, owing to the greater independence and bargaining power thus obtained.

The principal conditions which have to be fulfilled in order to obtain a satisfactory settlement of the fuel question are :—

(*a*) Oil of a quality suitable for use in His Majesty's ships.

(*b*) Security of supply.

(*c*) Reduction of liability to great fluctuations in price, and economy in average cost.

(*d*) Economy in transport, and regular employment for tank-vessels.

(*e*) Economy in storage.

The control over a large producing property which yields a quality of oil eminently suitable for use in His Majesty's ships, and which when fully developed will supply a considerable proportion of the requirements of the Admiralty goes far to satisfy (*a*) and (*b*). In addition a system has been adopted of placing forward contracts with reliable companies (including the shale oil companies of Scotland) operating fields which are geographically widely separated. There will still remain a balance to be purchased according to the exigencies of the market, and in effecting such purchases all sources of supply will be kept in view. Supplies available from the United Kingdom and other parts of the British dominions will certainly receive due consideration.

The realisation of (*c*) must follow from the fact that the Government will control a large portion of their regular supplies with the power of expansion in case of necessity. Similarly (*d*) and (*e*) will be greatly facilitated by the substitution of a regular source of supply under Government control for a system of contracts on the open market, which, in order to keep the average price within reasonable limits, entails buying large quantities when the market is favourable with the consequent heavy fluctuations in the demand for freight. It also reduces the necessity of maintaining more storage available than is necessary for the regular reserve, so as to provide accommodation for a sudden increase in quantity, owing to larger purchases on a favourable market.

With all the foregoing considerations in mind, the First Lord of the Admiralty stated to Parliament on July 17th, 1913, that a necessary part of the ultimate policy of the Admiralty must be that the Government "should become the owners, or at any rate the controllers at the source, of at least a proportion of the natural oil which we require." The Royal Commission, whilst deprecating expenditure in unpromising cases, and advisedly making no attempt to estimate the relative weight of particular claims, expressed the general opinion that circumstances might require Government financial assistance to be rendered for the control of important sources of supply already fully tested.

The grounds on which His Majesty's Government arrived at their decision to enter into the Agreement with the Anglo-Persian Oil Company are purely naval, viz., the imperative need of direct control of a reasonable proportion of the supply of oil fuel required for naval purposes. There are obviously other questions involved besides that of finance and the security of finding sufficient oil, and these questions have received due consideration. The opinion expressed in paragraph 11 of Admiral Slade's report, viz., as to the excellent effect in the matter of local tranquillity and progress already produced by the enterprise of the Anglo-Persian Company, confirms what had been learned from other sources, and it may be expected that an extension of the activities of the Company will strengthen the effect already produced and indirectly aid in other branches of local industrial development.

There is ground for confident anticipation that the step which has been taken will be of great benefit to the navy, and that the exercise of foresight in this matter, after the fullest investigation into the many complex questions that have arisen, will ultimately prove to have contributed greatly to the security of important naval supplies and to a very large economy of expenditure in providing for a fuel which will without doubt become an absolute necessity in order to secure the full efficiency of His Majesty's naval service.

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**Decease of a Well-known Californian Oil Man.** — We regret to record the death of Mr. John M. Keith, one of the pioneer operators in the Kern River field. Mr. Keith was primarily responsible for the organising of the Imperial Oil Company and the Thirty-three Oil Company, which, after paying several million dollars in dividends, were sold to the Kern River Oilfields of California.

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# THE RUSSIAN NAVY AND LIQUID FUEL.

With the development at the present time of the consumption of liquid fuel by the Russian Navy, and the increase of such year by year by many millions of poods, it is rather interesting to study the demands of the Russian Ministry of the Fleet regarding the conditions of the supply of liquid fuel as established by the latter. Of all the different kinds of fuel used for the navy, the two principal ones are mazout, or residuals, and the so-called motor fuel.

*Residuals.*—This kind of fuel must comply with the following conditions: Specific gravity, 0·900–0·930; flash-point (Pensky-Marten's apparatus), 100–130° C.; viscosity (Engler's apparatus) at 50° C., about 6; freezing-point, below —5° C.; contents of sulphur not to exceed 1 per cent.

The high flash-point of 100–130° C. is a striking one, and for heating boilers this must be considered very high, notwithstanding the fact that before entering into the sprayers the fuel is heated up to a high temperature. There is no reason to suppose that this pre-heating causes the formation of gases harmful to work or involving danger. If the fuel has to be pre-heated in order to render it more fluid and easier for combustion, this can be done quite well with ordinary oil fuel of specific gravity 0·890–0·920, flash-point about 80° C., viscosity, at 50° C., below 5. These conditions imposed by the navy for the supply of fuel caused difficulties, viz., by making the artificial manufacture of residuals necessary specially for the fleet, and necessitating the addition to the mazout of solar oil, which, of course, increased its cost. At the same time the calorific value of the ordinary fuel of usual market type is the same as that demanded by the navy, while it is obtained considerably easier, simply by mixing the residuals usually obtained in the refineries with a certain quantity of crude oil, which is cheaper and more easily done, as not every refinery disposes of solar oil, which is a product obtained only in the refineries working the residuals for lubricating oils. Then, again, there are many kinds of petroleum, which naturally possess all the properties of a good liquid fuel, and are suitable for the fleet, and although their flash-point is lower than that demanded by the Russian Ministry, this is not an inconvenience; on the contrary, it shows that the fuel is more fit for easy combustion, while at the same time their specific gravities are normal (generally speaking the specific gravity is of no consequence at all for the burning properties of oil, and is taken into consideration simply in calculating the weight of the oil). At the same time their viscosity is lower, which, of course, is a convenience, as such fuels will flow more easily through the pipes to the sprayers, even without being pre-heated. Generally speaking, pre-heating is not at all necessary, as in any case the fuel is pulverised. The pre-heating of the air and not of the oil is of importance. A supply of such fuels fit for the fleet, and at the same time cheap and obtainable in considerable quantities, is as follows:—

| | Specific Gravity. | Flash. | Viscosity. |
|---|---|---|---|
| Binagadi oil .. .. | about 0·927 | 70° C. | 3·9 |
| Zwaitoi Ostrov .. | ,, 0·925 | 75° C. | 6·3 |
| Khurdalan .. .. | ,, 0·921 | 76° C. | 2·6 |

Thus it can be seen that for the supply of the Russian fleet with a suitable fuel there is no necessity to conform to the extraordinary demands, which are simply making the cost of the fuel higher. It should simply conform to a certain minimum of qualities, be of good service under boilers, and at the same time be as cheap as possible. The flash-point should be about 70° C., viscosity not more than 6–7, and freezing-point below —5° C. This is all that is required for a good fuel suitable for the fleet, and if fuel were accepted conforming to the above demands, the fleet would have a more extensive supply at its disposal.

*Motor Fuel.*—This is used for internal combustion engines, and the demands of the Ministry are as follows: Specific gravity, not above 0·900; flash-point (Pensky-Marten's apparatus), 100–120° C.; viscosity (Engler's apparatus), below 5; percentage of tarry matter, below 10. The last condition is simply introduced in order to render the fuel free of excise duty, but it is far from being scientifically correct, as what is usually called tarry matter is far from being such, and in any case it is of no importance whatever as regards the usefulness of the fuel. The specific gravity 0·900 shows that it can be obtained only by adding a certain small quantity of residuals to the solar oil. In a word, this fuel is far from being pure and suitable for the purpose. The Russian market at present possesses a splendid motor fuel, viz., Surakhani "red" petroleum, of a specific gravity of 0·817, flash-point about 20° C., and viscosity, at 50° C., about 1, percentage of tarry matter about 4. The market price of this oil is slightly higher than that of ordinary petroleum, but then it is of high calorific value, and therefore considerably more suitable than the so-called motor fuel, as it is a transparent natural oil, which burns without any traces of carbonisation, and generally represents an ideal fuel.

The general opinion that high flash-points are a guarantee against the danger of fire is quite erroneous, and as regards the use of an oil as fuel, the easier it burns, the more practical it is, and as regards safety the "red" Surakhani oil, and generally any crude oil, represents considerably less danger aboard a vessel than the stores of highly inflammable materials, such as benzine, etc.

## IMPORTS OF PETROLEUM PRODUCTS INTO FRANCE.

The imports of petroleum products into France during February amounted to 35,989 tons, as against 60,841 tons imported during February, 1913. The imports of the various products were as follows:—

| From | Crude Oil. Tons. | Kerosene. Tons. | Benzine. Tons. | Other products. Tons. |
|---|---|---|---|---|
| Austria ... ... | — | 4,081 | 61 | — |
| Russia ... ... | 1,246 | 6 | 148 | 10,295 |
| Roumania ... ... | 174 | 511 | 94 | — |
| United States ... | 5,589 | 8,839 | 106 | 3,635 |
| Other countries ... | — | 283 | 55 | 866 |
| Total ... ... | 7,009 | 13,720 | 464 | 14,796 |
| Total for Feb., 1913 | 17,008 | 18,256 | 14,677 | 10,820 |

Besides the above products, there were imported 680 tons of paraffin, 10 tons of vaseline, 5,768 tons of asphalt, and 63 tons of ozokerite.

# THE CONSUMPTION OF LIQUID FUEL IN RUSSIA.

## A REVIEW FOR 1913.

THE consumption of liquid fuel in Russia during 1913 amounted to 75,379,300 poods as against 89,770,000 poods consumed in 1912, 102,524,500 poods in 1911, and 91,499,000 in 1910. Thus the consumption during the last year decreased as against the preceding year by 14,390,700 poods, or by 16 per cent., by 27,145,200 poods or 26·5 per cent. as against 1911, and by 16,119,700 poods or 17·6 per cent. as against 1910. The largest reduction took place in the central industrial districts, where the decrease as against 1912 amounted to 21 per cent., against 1911 to 38·3 per cent., and against 1910 to 28·6 per cent.

The above figures show the imports of fuel into the consuming centres, but of course they do not give an accurate idea of the decrease in the consumption, as there must also be considered not only the imports, but the stocks, etc. According to the Mining Industries' Committee the extraordinary growth of the imports of coal and anthracite into the industrial districts for industrial purposes is explained by the replacing of petroleum by coal in 1913 to the amount of 110,000,000 poods as against 55,000,000 poods in 1912, and 32,000,000 poods in 1911. The exports of coal to the Moscow district for 1913 exceed those for 1912 by 43,900,000 poods or by 61·6 per cent., which is explained mainly by the deficiency of liquid fuel, and the high price it commanded. The import of coal into other districts has also correspondingly increased.

Another important class of consumers of liquid fuel are the railways. The consumption of coal by the railways serving the industrial districts has considerably increased during the past few years, for in 1912 40,000,000 poods of coal took the place of petroleum, and in 1913 75,000,000 poods, which corresponds to about 45,000,000 poods of petroleum. Taking these data into consideration, and also the amount of stocks, the decrease in the consumption of petroleum by the two mentioned classes of consumers must have amounted to about 35,000,000 or 38,000,000 poods during 1913. There are many reasons for this, and among them the principal one is undoubtedly the frequent fluctuations in prices, and more recently the high standard of these prices, which does not allow liquid fuel to compete with other kinds of fuel.

During 1913 the average prices of liquid fuel were by 17·7 per cent. higher than in 1912, and 29·8 per cent. higher than in 1910, while the price of anthracite remained practically stationary. This difference in the development of the prices naturally explains the considerable increase in the consumption of coal to the detriment of liquid fuel. This process of replacing petroleum by coal is continuing during the present year. According to the preliminary statistics of the Mining Industries' Committee there were exported from the coal districts during 1914 399,420,000 poods as against 319,780,000 poods exported during the corresponding period 1913, thus showing an increase of 79,640,000 poods. The quantity exported would have been considerably higher, but for the deficient transport capacity of the railways. Inasmuch as prices for liquid fuel are likely to remain very high, the present tendency is bound to continue.

Another competitor of liquid fuel in Russia in the near future will be peat. The low calorific value of peat has been the main cause of this kind of fuel finding comparatively very little use in the industrial centres, but as a result of the great increase in the price of liquid fuel much attention is now being paid to this fuel.

According to the investigations of the Russian Statistical Bureau, the production cost of peat in the central area is from 5·5 to 5·7 copecs per pood, and the sale price is from 8·1 to 10·5 copecs per pood, which taking 3½ poods of peat equal in calorific value to one pood of oil, means 31·4 to 39·7 copecs per pood. The Ministry of Agriculture is paying great attention to the peat question and is engaged in elaborating special measures in order to develop the peat industry. It is intended during this year to open 21,775 dessiatines of peat marshes, and a simple and cheap method of manufacturing peat fuel by peasants and small producers is looked forward to. There will also be organised a special school for the training and preparing of foremen and masters for the peat industry, while the Ministry of Ways and Communications is forming a special committee in order to organise extensive experiments for using peat for railway engines.

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## MAIKOP PETROLEUM PRODUCTION DURING MARCH.

THE production of crude oil on the Maikop oilfields during March amounted to 387,554 poods. The following table shows the quantity of oil obtained, as well as the number of wells on each plot:—

| No. | | Quantity of oil obtained. Poods. | No. of wells on each plot. |
|---|---|---|---|
| 3 | Black Sea Company ... ... | 88,946 | ... 40 |
| 30 | British Maikop Company ... | 56,736 | ... 6 |
| 202 | Maikop Victory ... ... ... | 22,717 | ... 25 |
| 170 | Andreas ... ... ... ... | 74,969 | ... 3 |
| 16 | ,, ... ... ... ... | 28,229 | ... 57 |
| 21 | Maikop Premier Oil Syndicate | 90,115 | ... 4 |
| 13 | Andreas ... ... ... ... | 8,425 | ... 1 |
| 42 | Garjezakovski ... ... ... | 2,891 | ... 4 |
| 45 | Andreas ... ... ... ... | 513 | ... 1 |
| 130 | London Maikop Corporation ... | 984 | ... 2 |
| 193 | Andreas ... ... ... ... | 341 | ... 1 |
| 34 | Black Sea Oilfields .. ... | 2,621 | ... 3 |
| 1 | ,, ,, ... ... | 1,240 | ... 2 |
| 94 | Verbitchoff ... ... .. | — | ... — |
| 76 | Colkhida Company ... ... | 1,794 | ... 1 |
| 181 | Maikop Valley ... ... ... | 401 | ... 1 |
| 155 | Pekhovski ... ... ... | 180 | ... 2 |
| 15 | Andreas ... ... ... .. | 4,052 | . . 1 |
| 29 | Black Sea Oilfields ... ... | 2,400 | ... 1 |
| | Total ... ... ... ... | 387,554 | 155 |

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| ,, Servian ... | 6,700 | ,, Saxonian ... | 6,200 | ,, Luciline ... | 5,200 |
| ,, Carpathian | 6,700 | ,, Teutonian ... | 6,200 | ,, Le Coq ... | 4,700 |
| ,, Roumanian | 6,700 | ,, Terek ... | 5,200 | ,, Rock Light... | 4,100 |

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 13/0-14/0 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/6-24/6 |
| 5% Debentures ... ... | 600.000 | £100 | 99-104 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{11}{16}$-$\frac{13}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/3-4/9 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 5/6-6/6 xd |
| European Oilfields ... ... | 319.181 | 10/- | 6/0-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 29/9-30/9 xd |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78.000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 40/-41/ xd |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{7}{8}$-$\frac{15}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 25/0-26/0 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/3-4/9 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{16}$-$1\frac{3}{16}$ |
| " " Ord... | 690,000 | fully pd. | 11/6-12/6 |
| Shell Transport and Trading | | | |
| Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{7}{32}$-$5\frac{9}{32}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 23/0-23/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 624 | 627 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 226 | 228 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,200 | 18,300 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 938 | 942 |
| Russian Naphtha Society ... ... | 100 | 175 | 177 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 174 | 176 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 24/0 |
| " 6% Cum. Pref. | 100,000 | £10 | £$11\frac{7}{16}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 92/3 |
| " Pref. ... ... ... | 250,000 | £1 | $27/10\frac{1}{2}$ |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/9 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 39/0 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 28/3 |
| " Pref. (£1 paid) ... | 100,000 | £1 | $22/10\frac{1}{2}$ |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 81/0 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 15/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 44/9 |
| " "B" Deb. ... | 160,000 | £100 | £145 |

## DUTCH COMPANIES.

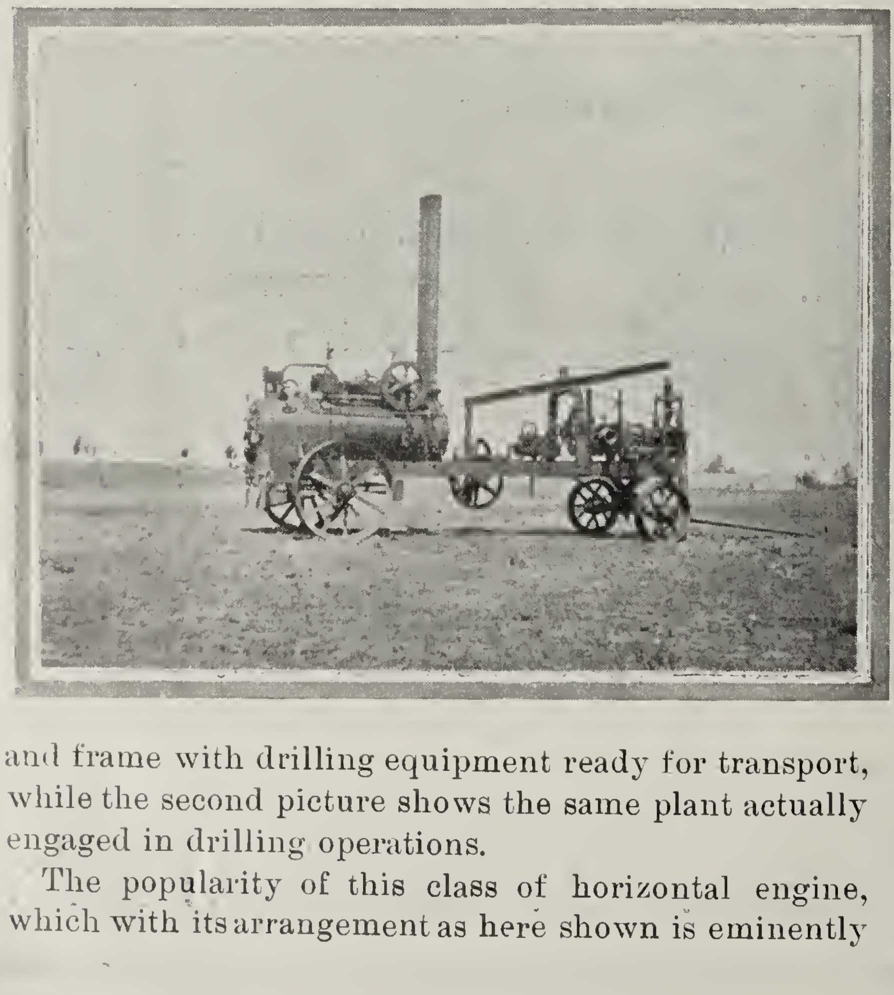
| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

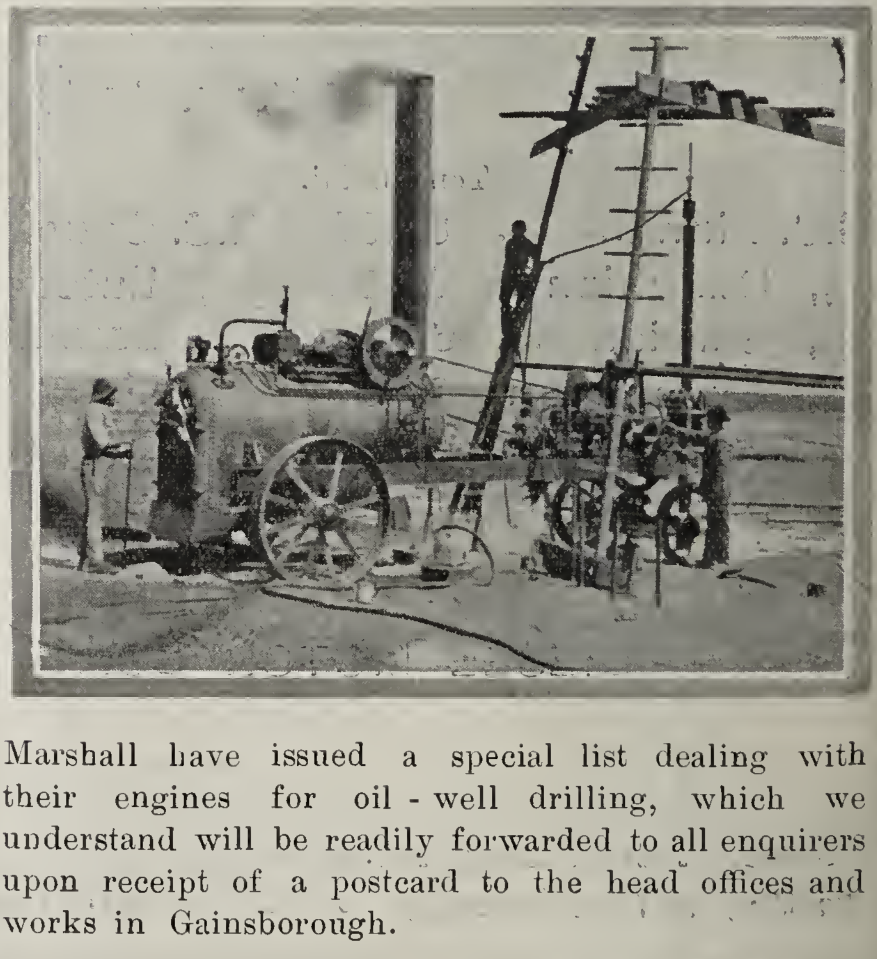
# PORTABLE ENGINES FOR OILFIELD OPERATIONS.

WE have pleasure in herewith reproducing two interesting photographs received from Messrs. Marshall, Sons & Co., Ltd., of Britannia Ironworks, Gainsborough. The first depicts the firm's now well-known and widely used portable engine and boiler mounted on wheels and frame with drilling equipment ready for transport, while the second picture shows the same plant actually engaged in drilling operations.

The popularity of this class of horizontal engine, which with its arrangement as here shown is eminently suitable for light portable drilling rigs for prospecting purposes, may be seen from the fact that Messrs. Marshall, Sons & Co. have made and supplied over 150,000 engines, boilers, etc.

Our readers will be interested to learn that Messrs. Marshall have issued a special list dealing with their engines for oil - well drilling, which we understand will be readily forwarded to all enquirers upon receipt of a postcard to the head offices and works in Gainsborough.





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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, MAY 30, 1914.

## THE BRITISH GOVERNMENT AND THE PETROLEUM INDUSTRY.

THE step which the British Government has taken in regard to acquiring the majority of interests in a particular petroleum company is of the greatest importance to the petroleum industry at large, inasmuch as it is bound to have a far-reaching influence upon not only the present oil-producing regions, but upon those which yet await commercial exploitation.

As my readers are well aware, the REVIEW has always taken a decided stand against the interference of governments with the petroleum industry in any way whatsoever; time after time it has shown how the Russian Government by attempting to regulate its railway freights for the export of Russian petroleum products, and also its freights to the interior markets, in a desire that they should be in harmony with the rise or fall of petroleum prices, was adopting a policy which could not but bring about very unfortunate results, not only to those who are directly interested in producing and refining the crude oil, but also to the consumer, as well as the Government itself, which is one of the largest consumers of petroleum products.

Then in regard to the persecution which the Standard Oil Company has had to submit to at the hands of the American Government, the Review has been particularly firm; and the attitude it has taken up is amply corroborated by the state of affairs existing to-day in the Oklahoma fields, where excessive stocks above ground, and a disinclination of the Standard to sink further capital in the field in providing either additional storages or market facilities, has brought crude oil prices down to practically one-half what they were twelve months ago.

From the more recent attitude of the Review toward the German Government, in its desire to establish a monopoly for refined oil, it will be at once obvious that the journal does not look with any great amount of sympathy upon the step taken by the British Government with regard to subsidising the Anglo-Persian Oil Company, in order that it may be in the position of securing a large proportion of its fuel supplies for Admiralty purposes.

There is, of course, no doubt that seeing the Government appointed a Commission to visit Persia and make inquiries upon the spot, it has formed the opinions which have led it to adopt its present policy, mainly upon the favourable report received from the experts who formed the Commission.

It is not for one to enquire why the chosen experts drafted such a favourable report as that which is to lead the British Government to sink—it is scarcely an investment—a sum of £2,200,000 in the far away and unfavourably situated fields of Persia; let it be sufficient to assert that this opinion has certainly not been based upon the present production of crude oil in the Persian fields, but upon the assumption that, by the expenditure of large sums of public money in making additional borings in the field, its production of crude oil will be materially increased.

Viewing matters in their cold light, one cannot compliment the Government upon having secured a bargain. Rather have they embarked upon a policy which is decidedly injudicious, to use no stronger term. A few facts and figures will here assist one to appreciate the position. Taking the Anglo-Persian Oil Company's last balance-sheet, the concern is shown as owing about £15,000, after deducting loans, bills, etc., and after allowing for cash investments, stocks and production—a financial position which cannot be classed as being particularly sound. Now, in accordance with the opinions of the experts, by the expenditure of a million and a-half sterling, the crude oil which the company will be able to deliver will amount to 240,000 tons per annum.

It will require a sum of not less than £30,000 to meet the yearly obligations of the company on its five per cent. debentures (apart from the interest on the debentures now being taken up by the Government), without considering the question of amortisation, while double this amount will be necessary—£60,000 per annum—to pay the six per cent. upon the one million cumulative preference shares. Thus, in regard to these items alone £90,000 per annum will have to be forthcoming. This will, upon the quantity of crude oil output anticipated, represent approximately 7s. 6d. per ton, pumped through the company's pipeline. Then, we must not forget the question of amortisation, which at the very low figure of five per cent. on the value of the whole properties, shows another 7s 6d. per ton on the assumed crude oil production, thus forming a total charge of at least 15s. per ton.

The cost of piping the oil through the 150 miles o pipeline must be put at not less than, say, 4s. per ton including which figure we see that the self cost of th crude oil at the refinery is practically £1 per ton, an this without charging any cost for the actual production of the oil itself, boring expenses, administration charges, etc.

We will, however, assume that these latter charges d not exceed 10s. per ton, which brings the cost of th crude oil at the refinery to 30s. per ton or thereabouts.

Even to this sum there must be several additions o unavoidable expenses always associated with a concern whose crude oil production is so far removed from it refinery, especially in a country which teems with s many drawbacks to commercial success. Then, again when viewing the prospective success of the whole proposition, it must be borne in mind that 12 per cent of the profits have to go to the Persian shareholders and a royalty of 16 per cent. to the Persian Government But this is beside the main point of protest, and simply mentioned to show how remote it is for the ordinary shareholders in the company to ever hope of receiving a single penny in dividends.

The Commission who have investigated the case on behalf of the Government assert that 30 per cent. of the products must be removed from the crude oil before it is suitable for naval requirements, and thus the total quantity which is expected to be available will be not 240,000 tons, but 170,000 tons, for it must be remembered that the capacity of the pipeline is limited to the former quantity, and therefore 170,000 tons must be regarded as a maximum. These facts being admitted, the position is that, considering 4 per cent. as a modest rate of interest upon the sum to be provided by the British Government, a yearly sum of £80,000 of public money is to be paid away per annum for the privilege of being able to purchase 170,000 tons of oil fuel at 30s. per ton as a minimum price.

But there is one point which stands out very prominently when carefully considering this question. As may be known, the north and north-eastern part of Persia has the chief population, and this portion of the country has always been and will always be provided with its petroleum requirements from the refineries at Baku. The other portions of Persia are, on the whole, sparsely populated, and their oil requirements are comparatively small; thus the Anglo-Persian Oil Company will have to rely for the disposal of its products chiefly upon markets outside Persia, and will therefore come into open competition with other petroleum producing and refining interests.

Whichever way one looks at the subject, an aspect is presented which is distinctly unhealthy. On the one hand, if the company's output of crude oil is kept to the capacity of its present pipeline facilities—and therefore small—the Government has made one of the worst bargains for itself that can be imagined; on the other hand, if by erecting additional pipeline facilities, the company will considerably increase its output of crude oil—and of course, also its refined products—then it will have a distinct advantage over all its competitors by the reason that it will operate under a most bulky subsidy from the British Government.

As I have already inferred, the scheme as outlined elsewhere in this issue will most assuredly strike a severe and serious blow to English enterprise in the petroleum industry, in which at the present time nearly two hundred companies have a combined capital of approximately, £200,000,000—most of it British.

If the Admiralty wants adequate supplies of oil fuel, then there are dozens of channels open for it to achieve this end, but an agreement of the kind indicated is grossly unfair to the petroleum industry at large, and unworthy of the support of the British Government.

Paul Dvorkovitz

# NOTES FROM THE OILFIELDS.

## AMERICAN.

**Mid-continental Stocks.**—The total stocks of crude oil in the Mid-continental fields at the close of last month amounted to over 54,000,000 barrels.

**The Lost Hills Pool.**—The Lost Hills Pool in California, which was opened up several years ago, has now a production of 282,000 barrels per month, this quantity being produced by five companies who control the district.

**The Union Oil Company.**—The Union Oil Company of California is now engaged in making extensions to its Oleum refinery on San Francisco Bay. This refining plant is the largest owned by the Company, having a capacity of 20,000 barrels daily.

**Deep Drilling in San Diego County.**—Several deep drilling propositions are being rapidly pushed forward in San Diego County, California. The Balboa Oil Company has one test down to 3,500 ft., while the well of the Lo Tengo Oil Company near Otay is nearing the same depth.

**Californian Field Operations.**—In spite of the decline in the prices of eastern American crudes, there has been no recent change n the quotations for Californian oil. The demand is increasing, and operators look forward even to enhanced prices. There is much activity in the fields.

**A Deep Rotary Well.**—The possibilities of deep drilling by means of the rotary drill are shown in a well on the property of the Rio Bravo Oil Company near Orange, Texas, when a depth of ,010 ft. was attained, the rotary being used to the full depth. As a rule cable tools are used for depths after 3,000 ft. has been reached.

**Pacific Coast Oil Shipments.**—The shipment of petroleum products from Pacific coast ports to Alaska and Hawaii continue to increase, and during March San Francisco sent over ,000,000 gallons of crude to Alaska and 4,000,000 gallons to Hawaii. Over 14,000,000 gallons of illuminating oil left San Franciso during he month.

**The Gulf Coastal Fields.**—Though there is considerable development work being carried out in the Gulf Coastal fields, few completions are being made, wells being drilled into the top of the and and then shut down. Operators fear that an increasing prouction at the present time might assist to bring prices to a lower evel, for it is argued that far too much oil is in sight to meet the resent demand.

**The Standard Company's Gusher.**—The Standard Oil Comany's gusher on the Emery lease in the La Habra valley of alifornia is still flowing at 6,000 barrels daily. The well was rought in last November and at first flowed at nearly double its resent rate. The total production from the well so far has been ver a million and a-half barrels of crude oil. Another well on the ame lease, and also owned by the Standard, is producing one housand barrels daily.

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## RUSSIAN.

**The Kavkas Company.**—A meeting of the creditors of this ompany recently took place at St. Petersburg, at which it was ecided to resume business.

**Goudron, Free of Duty.**—The Ministry of Trade and Industry as agreed to allow the import of goudrou from abroad free of uty for the purpose of manufacturing briquettes.

**A New Petroleum Company.**—A new petroleum company, nder the name of Reno, with a capital of 2,000,000 roubles in 0,000 shares of 100 roubles each, has been formed for the purpose f petroleum exploitation in the Ural province and the Caucasus.

**Peat Fuel.**—The Russian engineer M. Riukevshel has invented method for refining peat from foreign matters and pressing it nto briquettes. The briquettes manufactured by this method are aid to be not inferior in calorific value to the best coal, and when urning do not give any smoke nor leave any ash.

**Rilski Trustees.**—The balance-sheet of this company for 1913 hows a gross income of 2,241,854 roubles and a net income of 408,348 roubles. A dividend of 18 per cent. per share will be stributed to the shareholders, totalling 1,320,000 roubles, and the remainder will be transferred to the reserve capital. The capital of the company is 12,000,000 roubles.

**The Volga-Kama Steamship Company.**—The Volga-Kama Steamship Company has acquired for the purpose of the present navigation 2,300,000 poods of liquid fuel, to be supplied by Messrs. Nobel Bros., the Mazout Company, and the Eastern Company. The Volga-Kama Company is now negotiating for the purchase of several petroliferous plots in the Baku district.

**Russian Nafta Society.**—The balance-sheet for 1913 of this company shows a gross income of 13,600,000 roubles, as against 8,300,000 roubles obtained in 1912. The expenditure amounted to 8,500,000 roubles, as against 5,700,000 roubles in 1912, while 3,500,000 roubles are distributed to the shareholders—16 roubles per 100 rouble share. The capital of the company amounts to 16,500,000 roubles, and a new issue will be made of 8,250,000 roubles.

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## ROUMANIAN.

**Baicoi.**—Well No. 4 Romana-Americana at Ferbatori has now struck oil and produces from 20-30 tons a day by overflowing.

**Roumano-Belgium Petroleum Company.**—The offices of this company have been moved to Tzintea, but the administration still remains at Bucarest.

**The R. van Sickle Company.**—This firm intends boring nine new wells by the rotary system at Chiciura. Well No. 1 of the firm has now attained a depth of 420 metres.

**Doftanetz.**—Several wells have been struck in this locality, among which is the well No. 2 Gheorghe I. Stroe, at a depth of 260 metres. Well No. 1 Jean Goldfield maintains its production of 20 tons a day.

**Vulcaneshti Company.**—This company has formally taken possession of its concessions at Vulcaneshti, Bustenari and Bordeni, and is organising the exploitation of same, which will commence very shortly.

**Saturn Company.**—This company is increasing its capital by 400,000 francs, as the formation capital of 400,000 francs is found to be insufficient for the working of the refinery which the company has erected at Buzau.

**Victoria Company.**—This company, the administration of which is at Paris, has obtained the authorisation of the Ministry to establish its offices at Ploeshti in order to manage its petroleum exploitations in Roumania.

**Chiciura.**—Well No. 1 of the Chiciura Oilfields, Ltd., struck oil at a depth of 642 metres, which now overflows the column in which there are about 500 metres of water. Preparations are being made in view of an expected eruption.

**Arnhemsche Petroleum Maatschappij.**—This company has decided not to acquire additional land. The contracts for the concessions in Roumania have still ten years to run, with a delay of eight years, making eighteen years in all—a sufficient term for exploitation.

**Cobalcesco Company.**—At the ordinary meeting of the shareholders of this company, the administration was re-elected and the balance-sheet passed. The new administration has been given a power of attorney to sell the total or a part of the property of the company.

**Activity of the Arnhemsche Petroleum Maat.**—The increase in the April production of this company is due to well No. 17 at Recea, which gives a permanent production now of 15-20 tons a day, and also to well No. 14 at Grausor, which has become productive at a depth of 240 metres with a yield of five tons daily.

**Petroleum-Industrie, A.G. Nuernberg.**—This company has decided to acquire an exploitation and refinery in Roumania in order to obtain its own raw materials for its benzine refinery in Germany. For this purpose the capital has been increased from 400,000 marks to 1,150,000 marks. The value of the acquisition so far in Roumania amounts to 1,100,342 marks, including 455,889 marks for concessions, 59,291 marks for new wells, 394,534 marks for the refinery at Ploeshti, and 198,628 marks for various buildings.

# THE BURMAH OIL COMPANY, LTD.

## THE REPORT BY THE DIRECTORS.

The report of the directors of the Burmah Oil Company, Ltd., which will be presented to the twelfth annual general meeting of the company, to be held in the Merchants' Hall, Glasgow, next Wednesday, states that net profit, including £52,240. 14s. 3d. brought forward from 1912, amounts to £874,987. 15s. 10d.; from this there fall to be deducted the amount applied in redemption of outstanding debenture stock and placed to general reserve, £220,000; and the interim dividends paid on November 4th, 1913: (*a*) 6 per cent. first preference shares of £1 each—dividend, less tax, £7,062. 10s.; (*b*) 6 per cent. second preference shares of £10 each—dividend, less tax, £21,187. 10s.; (*c*) ordinary shares—dividend (free of tax), £142,875, making a total of £171,125; leaving £483,862. 15s. 10d. Out of this sum the directors recommend the following final dividends and bonus for the year 1913, viz.:—(1) On the 6 per cent. first preference shares of £1 each—7½d. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), amounting, after deducting income tax thereon, to £7,062. 10s.; (2) on the 6 per cent. second preference shares of £10 each—6s. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), amounting, after deducting income tax thereon, to £21,187. 10s.; (3) on the ordinary shares of £1 each, numbered 1 to 1,905,000 inclusive—(*a*) 1s. 6d. per share (equivalent to 15 per cent. per annum from June 30th to December 31st, 1913), *free of income tax*, amounting to £142,875; (*b*) bonus of 2s. 6d. per share, *free of income tax*, amounting to £238,125; making a total of £409,250; leaving to be carried forward, £74,612. 15s. 10d.

The whole of the debenture stock having been paid off, the £180,000 standing at debenture stock redemption account has been transferred to general reserve.

The increase in profit as compared with that for 1912 is mainly due to the higher range of values which ruled throughout 1913 for practically all oil products. A continued steady increase in consumption of kerosene oil in India also contributed to the increased profit. The final dividend of 1s. 6d. per share and the bonus of 2s. 6d. per share now recommended for payment amount, with the interim dividend paid on November 4th, 1913, to a total distribution on the ordinary shares of 27½ per cent., as compared with 20 per cent. for 1912.

Depreciation has, as usual, been fully provided for, and the following amounts have been written off:—refineries account, £79,880. 19s. 6d.; oil wells, etc., account, £244,329. 7s. 10d.; pipelines account, £54,373. 10s. 6d.; tankers and tank installations account, £62,058. 2s. 10d. There has also been placed to the credit of fields reserve, £80,000, and of insurance reserve, £20,000, bringing the totals at credit of the two last-named accounts up to £650,000 and £220,000 respectively. Drilling results in the old and proved fields, while of a variable character, have on the whole been of a satisfactory nature. The Singu field continues to show most satisfactory developments. Th expenditure on the oil wells and fields which has bee entirely written off, shows a substantial increase as compared with the previous year, mainly due to the cos of the deeper drilling in the Twingone area of the Yenangyoung field. No encouraging results have been obtaine in the Minbu field nor in any of the outside district under test.

The refineries have run continuously and satisfactoril throughout the year and all plant has been maintaine in the highest state of efficiency. The pipeline ha worked throughout the year without stoppage of at al a serious nature. Unfortunately while discharging a Tuticorin in November the tank steamer "Twingone" took fire, and although the fire was eventually extinguished and the steamer towed to Bombay she was s severely damaged as to make it impossible to repair he satisfactorily. A tanker was at once chartered to tak her place and an order for a new tanker to replace he is on the point of being placed. With the exception o paraffin wax prices for the company's products are being well maintained and the prospects for the current yea are consequently favourable. In accordance with th Articles of Association the directors retiring at this time by rotation are Mr. John T. Cargill and Mr. C. W. Wallace, who, being eligible, offer themselves fo re-election.

The directors have to record with deep regret the death towards the end of the year of their colleague Mr. M. Tarbett Fleming, who was the sole surviving director of the original Burmah Oil Company. To fill the vacancy caused by Mr. Fleming's death, the directors, in accordance with Article 89, appointed Sir Campbell Kirkman Finlay, who was for a number of years the company's chief representative in the East. In accordance with Article 89a Sir Campbell Kirkman Finlay falls to retire and offers himself for re-election.

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# ROUMANIAN PETROLEUM PRODUCTION.

### Details for the First Quarter.

The production of crude oil in the Roumanian fields during the first quarter of the present year amounted to 434,105 tons, as against 472,539 tons during the corresponding period of 1913. The production in the various districts was as under:—

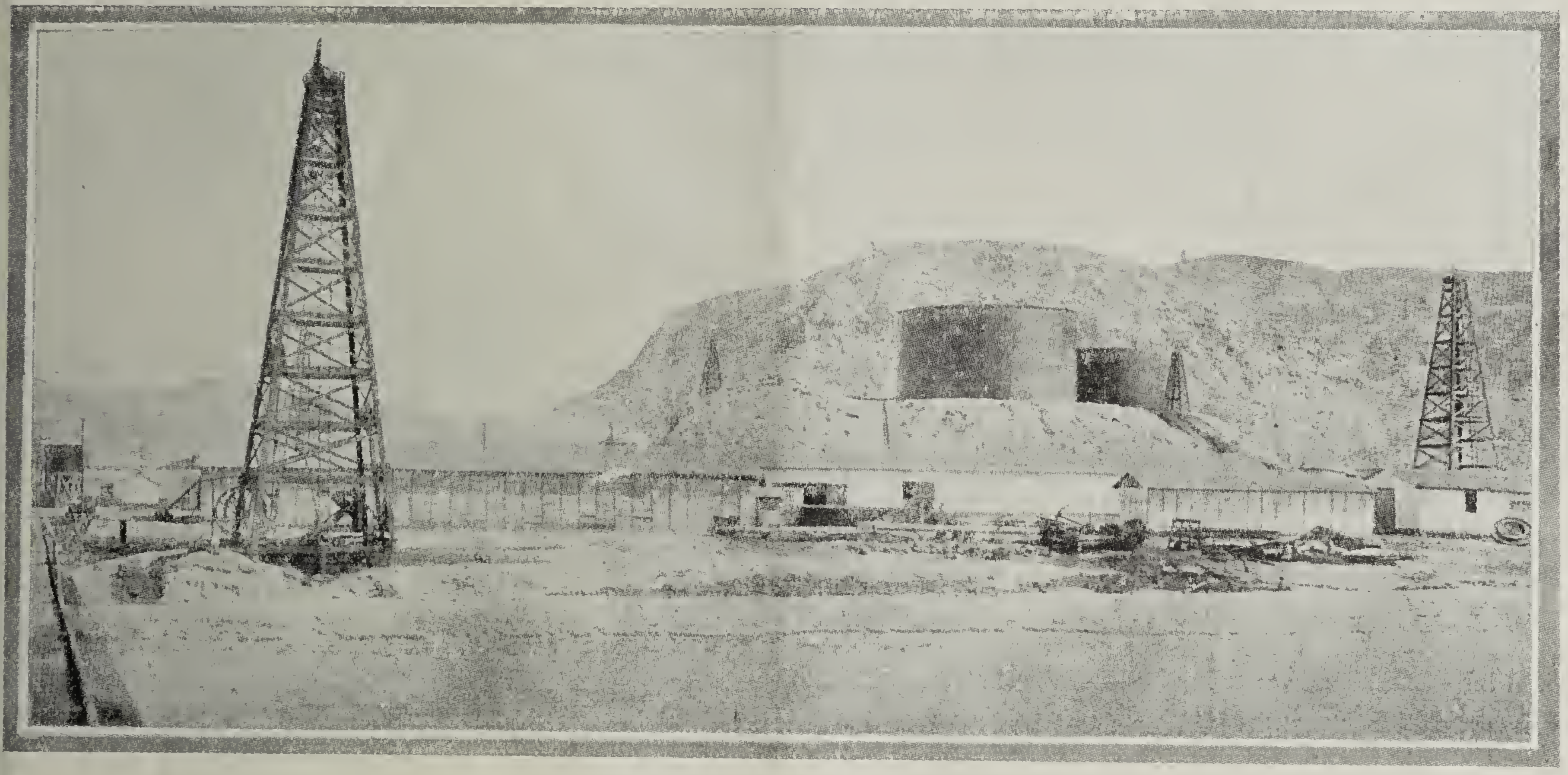
| | Tons. |
|---|---|
| Prahova ... ... ... ... | 371,457 |
| Dambovitza ... ... ... ... | 11,588 |
| Buzau ... ... ... ... ... | 39,880 |
| Bacau ... ... ... ... ... | 11,180 |
| Total ... ... ... . | 434,105 |

# THE ZORRITOS OILFIELDS.

## ESTABLECIMIENTO INDUSTRIAL DE PETROLEO DE ZORRITOS.

*Reprinted from "Peru To-day."*

The history of the Zorritos Oilfields, located in the seaboard Province of Tumbes, northern Peru, in approximately 3° 42′ south latitude, covers a period of more than half a century. The fields were originally discovered by de Lama in 1862, and the history of their exploitation for the following decade, more or less, was a record of repeated financial failures. In 1875, the present owner of the property, Mr. Faustino G. Piaggio, became a partner, and in 1883 the sole owner of the property. Since that time the production of the fields has grown steadily, and to-day they represent one of the most valuable petroleum properties in the Republic.



The Zorritos fields extend in the greater part along he Pacific Ocean, 20 miles north of the port of Tumbes, he beach in this section varying in width from 50 to 00 metres, and rising abruptly on the landward side o a low alti-plane. The petroleum lands, operated by he Establecimiento Industrial de Petroleo de Zorritos i.e. Faustino G. Piaggio y Co., of Callao), are about 00 square kilometres in extent and are part of the an Viejo *hacienda*, or estate, which is also owned by the atter company. The climate in this section of Peru s dry and healthy; there is a season of light rainfall etween the months of January and May; the maximum emperature in the summer months is 35° C., while uring the winter months it does not go below 22° C. his is in part explained by the predominance of the egular southerly winds. The *camino real* from Tumbes o Paita passes through Zorritos, and the distance etween the two latter ports by this highway is about 20 miles. The distance from Zorritos to Tumbes is pproximately 20 miles. Excellent roads also connect orritos with the *haciendas* of the interior, which are largely given over to cattle grazing on the extensive natural pastures, and to the cultivation of carob trees. The port of Zorritos also has the facilities offered by an office of the National telegraph lines and a station of the Central and South American Telegraph Company.

The establishment employs about 100 men, who are housed in buildings provided by the company. The offices are located in a large and comfortable Administration Building, from which the operation of the Pan Viejo estate is also directed. A general store is operated by the company, an excellent assortment of merchandise being carried and moderate prices charged, this branch of the business having been inaugurated purely for the benefit of the workmen. As an illustration of the solicitude with which the company looks after the welfare of its employees, it may be noted that the water supply for domestic uses is secured from the ocean and distilled in large boilers; the plant for this purpose is of sufficient capacity to maintain at all times a generous supply of this necessary element for all of the inhabitants of Zorritos, as well as the livestock used in the work of the port. In addition, the water supply is further assured by the operation of a small tank steamer of 200 tons capacity, which brings water from an artesian well owned by Faustino G. Piaggio y Co., at Callao. This water is stored in a large cement tank of the same capacity, located near the mole, at Zorritos.

The layers and filtrations of petroleum at Zorritos are exceedingly variable in their location and in the amount of oil which they produce. In general, however, it may be said that small filtrations are encountered at a depth of from 250 to 300 ft., and as the shafts are sunk deeper richer deposits are encountered, the most important being found at a depth of 1,500 ft. Practically all of the oil secured from the Zorritos fields is taken from wells of the latter depth. The majority of these wells are "gushers," and a number of them, tapped 12 years ago, are still flowing. Natural gas is found in large quantities and is largely used throughout the establishment for light, and fuel for the operation of engines.

The quality of petroleum produced from the filtrations, found at a depth of from 1,500 to 1,700 ft., is of a dark greenish-brown colour, with an agreeable aromatic odour, analysis showing an absence of sulphur in the chemical composition. The approximate composition of the petroleum is as follows:—

| | |
|---|---|
| Carbon .. .. .. .. .. | 83 |
| Hydrogen .. .. .. .. | 14 |
| Oxygen .. .. .. .. .. | 3 |
| | 100 |

Its density on Beaumé's scale is 38·4°, at a temperature of 60° F.; the corresponding specific gravity being 0·830.

Between the horizontal layers of petroleum sands through which the wells are drilled occur beds of clay, which in some wells reach a thickness of 500 ft. Layers of hard stone with a base of fine yellow sand also intervene and separate the various layers of petroleum filtrations.

In general, the wells flow naturally for a number of years, as has already been noted, and afterwards a steady production is maintained for a long period by the use of pumps.

The samples brought up from between the 300- and 1,000-ft. levels vary greatly and are always intermingled; there is coarse and fine clay; sand, generally fine, accompanied by salt water; and a compound of clay, sand gravel and shell deposits. The superficial soil presents rocks, sea sand, and clay, the latter varying in tint from yellow to grey-blue.

The cost of "washing" the wells is very reasonable and during the past 60 days one of the wells tripled its production after the shaft had been cleaned out.

Practically all of the machinery and equipment used in the Zorritos establishment is of the latest and most modern design, and with the facilities at hand it will be possible to sink the oil wells to a depth of 3,000 ft. if that is deemed advisable. The type of oil derrick and drill used at Zorritos is known as the "California," with a number of minor improvements and variations suggested by actual practice in the fields.

At present there are in operation five drills located in different zones, for the purpose of sinking exploration shafts to the 1,500- and 1,700-ft. levels. All of these zones are in communication with the centre of the Zorritos fields by a Decauville railway system, which likewise connects up all other sections of the establishment. The same zones are also connected with the central section by convenient pipe lines, providing the fuel, water, gas, etc. The petroleum, from the wells, is collected by pipes and carried to two measuring tanks, and thence pumped to the iron storage tanks, having a maximum capacity of 5,000 tons.

(*To be concluded.*)

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# THE MAIKOP COMBINE, LTD.

## BRILLIANT PROSPECTS FOR THE NEW ORGANISATION.

THE first ordinary general meeting of the Maikop Combine, Ltd., was held on Tuesday at Winchester House, Old Broad Street, E.C., Mr. George Tweedy (chairman and managing director) presiding.

The Chairman said: With your permission, I shall follow the usual course of taking the report and accounts as read. Turning to the balance-sheet, you will see that the total number of shares issued is 513,169, a further 6,522 having been allotted since the date of the statutory meeting last year to some shareholders in the amalgamating companies, who, up to that date, had not availed themselves of their right to apply for shares in this company. Though these applications were somewhat belated, the directors agreed to allot on them, as it was their desire that no shareholders in the old companies should entirely lose their rights. There still remains 6d. per share to be called up on 480,787 shares, but I do not anticipate that it will be necessary to call on the shareholders for some time in view of prospects to which I shall refer later. Calls in arrear at the date of the balance-sheet amounted to £185. 16s. Since then some of these calls have been paid, the amount outstanding being now only £13. 9s. 6d., and this we expect to get in shortly; 255 shares have, however, been forfeited. The small item of £752 for creditors arises in the ordinary course of business.

On the other side of the balance-sheet our principal item of capital expenditure has been on drilling wells—£13,986. A considerable part of this expenditure was for the carrying out of obligatory work to maintain our rights, as on commencing the task of putting the business of the combine into working order, we found ourselves faced with the necessity of prompt action to comply with the requirements of the Russian law governing contracts for oilfields. The period for carrying out this work having in many cases very nearly expired, we had o concentrate all our forces for a time on those plots in order o obviate the danger of their being forfeited. This was a somewhat formidable undertaking on account of the large number of plots which had to be dealt with. I think it only right to mention that our association with the Anglo-Maikop Corporation nabled us to carry out the work more expeditiously than would therwise have been the case, and I am pleased to say that (as xplained in the report) every requirement of the Government was complied with within the stipulated period.

We found it necessary to make some alterations and additions o the water installation (which was included in the assets of the Maikop Areas). These entailed an expenditure of £3,467. You will note a loss of £1,576 by fire. This was for a dwelling-house, urnt down in November, 1912, just at the time we were taking ver the properties. We are now fully covered against any loss y fire. The valuation of the plant, machinery and movable roperty taken over from the old companies was £19,520, and, n addition to this, we have spent £11,163 during the period under eview, making a total of £30,683. We have, however, succeeded in disposing of some of the materials which were unsuitable or our requirements. These realised £11,235, and therefore he amount of this account at the date of the balance-sheet was 19,448. Deposits with the Russian Government, £4,095, is considerable item, but these have to be made in accordance ith the Government regulations as security for the due payment otvod rentals, etc. These deposits are in Four per Cent. overnment Bonds, and we, of course, receive the interest. etitions to alter these regulations have recently been presented y the Kuban District Oil Producers, as it is considered somewhat nfair that operating companies should have to lock up an ppreciable amount of capital in this way. Our share investents stand at £38,857, and comprise large holdings in the aikop New Producers, Maikop Pipeline and Transport Company nd Maikop Valley Company, included in the assets taken over om the old companies. Whilst it must be admitted that these ares stand in the market at the present moment at low prices, the recent favourable developments on the field should, in my opinion, make these assets of much greater value. Take, for instance, the Pipeline Company. It has a monopoly of the piping facilities from the field, and therefore must benefit, no matter who the producer may be. The Maikop Valley Company has for some time past pursued a waiting policy, but this may be changed by the results obtained from the deep wells on 108 and 120. The Valley is the lessor of the latter on a royalty basis; besides it retains an interest of 20 per cent. in the co-operative working of the plot, holds a plot immediately adjoining 120, and has many other plots which may be favourably affected by the new discoveries at depth. The New Producers hold a very large area in the eastern portion of the field, where developments, which I will explain later, should greatly improve the position of that company. General expenditure in London during the period amounted to £3,121 and debenture interest to £3,423. In Russia, after deducting sundry receipts, the expenses under this heading were £4,612. Sundry debtors at the date of the balance-sheet were £3,132. These are all good.

To sum up, our financial position at the date of the balance-sheet, including cash in hand, sundry deposits, debtors, crude stocks, etc., after deducting creditors and debenture interest due February 1st, shows a net surplus of £8,961. 19s. 3d. The final call will amount to £12,007. 6s., making the total available cash and cash assets £20,969. 5s. 3d. In addition to this there are, of course, our share investments. Our heaviest initial expenditure has already been paid, and in whatever directions the field may develop we should benefit not only by our own properties (a large number of which are very well placed), but also by the success of the companies in which we are so largely interested. You will note by the report that the legal difficulty regarding transfer of certain plots mentioned at the statutory meeting was eventually overcome. The unexpected delay, however, had a considerable bearing on our progress, since the plots in question were nearest to what was then the only producing area on the Maikop field, and these were the properties on which we had intended concentrating our drilling work. While several of the plots which we hold in the north-eastern part of the field were not affected by this legal difficulty the development there had not at that period given the satisfactory results recently obtained, and we accordingly did not think it wise to commence boring there at the time. In other words, we had obtained possession of the least valuable properties, so far as we then knew, and had not obtained the transfer of those which we believed most likely to show good results. As you are aware, in the north-eastern part of the Shirvansky district several wells have recently been bored by other companies connected with the Anglo-Maikop group, and apparently a very large area of what is known as the "heavy oil source" has been discovered at depths varying from 600 ft. to 1,400 ft. While the output of individual wells producing from this source varies considerably, the deposit is far more regular than that of the light oil, and the wells are likely to have much longer lives. One well in this area has been producing for over four years, and it is to-day giving 2,000 poods per week. Owing, however, to difficulties experienced in shutting off the water, the district was neglected until quite recently. The water problem has now been solved, and, in the case of the Maikop New Producers, two wells in succession have just been completed on Plot 534; both have good oil shows. A well struck oil a few days ago on 554, two-thirds of a mile to the north-east of the wells on 534. This is of special interest to this company, as 554 adjoins our Plot 573. In view of these developments preparations are now being made to commence wells on Plot 573.

To convey to you some idea of the spurt in development work which has resulted from these recent discoveries, I may mention that 11 wells are now being drilled and 10 more projected in this part of the field by companies connected with the Anglo-

Maikop group alone. You will understand from the report that two of the four wells drilled in the Neftianaya region were unsuccessful. It does not follow, however, that on these plots oil may not be discovered at lower depths, but, in the opinion of the board, this company has done its fair share of exploratory work there for the present, and, therefore, we have temporarily suspended operations in that district. One point I should like to mention—and here I am giving you my personal opinion—I am convinced that a large oil source exists in the Neftianaya district, and I consider it is only a matter of time for the oil area in this region to be linked up with the present producing district in Shirvansky. As to wells on Plots 389 and 410, from which we have produced oil, the data obtained lead to the supposition that the wells are on the edge of the main oil deposit, and, if this is so, it would account for their relatively small production. As you know, most of the production so far obtained from the Maikop field has been from what is known as the Shirvansky light oil source. The extension of this source has, during the last four years, gradually been traced north-north-west, and the latest productive wells of the Maikop Premier Oil Syndicate are only 300 yards from the boundary of our Plot 457. From the general direction it would appear that this plot is on the oil line, but, knowing the irregular character of the deposit, the board decided not only to continue the well partially drilled by the old company on the northern limb of the plot, but at the same time to bore a new well at the southern end of the western limb. I must explain that this plot is shaped like an " L " upside down. The first of these two wells is now at 1,051 ft. and the second at 775 ft. If we succeed in tracing the extension of the light oil source to our Plot 457, also belonging to this company, it is more than probable we shall find it also on 435, the eastern end of which is only 350 yards from the western boundary of Plot 457. Since the publication of the report, interesting news has come to hand that the deep well on Plot 108, in the Khadijenskaya district, is down to the original depth of 2,260 ft., and is flowing intermittently, giving between 500 and 750 poods daily. Some details have been given in the report of the strike of oil in the well on the adjoining Plot 120 This is owned jointly by five companies of the Anglo-Maikop group—namely, this company, Black Sea Oilfields, Maikop Victory Maikop Valley, and the corporation itself. The plot is 27 acres in extent. There is, therefore, room for a large number of wells. We have received a telegram this morning, which says: "Deep well on Plot 120, 2,228 ft.; while drilling 550 ft. oil rose suddenly in the well; telegraphing further news later." In the early history of Maikop many experts considered that the Khadijensky field would eventually prove to be prolific. The discoveries I have mentioned tend to show that these hopes will in all probability be realised. There is only one other point on which I need touch. A proposal has been made to us to purchase the water works already referred to on conditions very favourable to this company. If the negotiations are successfully concluded the company's financial resources would be further increased. I am sorry I am not in a position to speak more definitely on this matter to-day, as I do not wish to say anything which might affect negotiations. I have endeavoured to give you as complete a picture as possible of the position and prospects of your company at the present time. Although we are not yet in the producing list, from my remarks I think you will agree that we should not have long to wait. The Maikop field is beginning to show what I believe to be its true worth. We have had difficulties and delays, together with our fair share of disappointments, but everyone familiar with the business of oil winning will understand that such difficulties apply to every oilfield, particularly in the early stages. These are being daily overcome, and I consider the outlook to-day for the company is much more hopeful than when I last had the pleasure of addressing you. I now formally beg to propose "That the balance-sheet as at January 13th, 1914, and the report and accounts of the directors be adopted," and I will ask Mr. Hicks to second the resolution.

Mr. Alfred Hicks: I have much pleasure in seconding the adoption of the report, and I would like just to add a few words to what our chairman has said. I think we ought to recognise that any progress that has been made on the Maikop field is almost entirely due to the Anglo-Maikop group and its managing director, Mr. Tweedy. You may think we have been very slow in the past year in getting a production of oil for this company. I think I am the largest individual shareholder of the company, and it is also a disappointment to me, but at the same time I want you to realise that we have been able through our association with the Anglo-Maikop organisation to get through a very large amount of detail work, and we have been able to do that with at the same time a steady reduction of costs. I am quite certain we have carried out the necessary and obligatory work on a far cheaper scale than we could possibly have done it but for our association with the Anglo-Maikop group. I would just like to say—I am standing next to the great optimist in connection with Maikop—that certainly nothing would have been done on the Maikop field without optimism, especially considering what the field has had to go through with regard to being run down and scoffed at by a large number of people, and especially some of those who call themselves experts. I have always held the strongest opinion that in Maikop we have an oilfield. It must be obvious that if we have an oilfield there with the present prices of oil, the price at which our shares are standing does not represent anything like their true value. At all events, it is quite clear that it is not proved not to be an oilfield. Well, gentlemen, that is a very important fact for us. Maikop has certainly not proved to be a failure so far, and I must say, in conclusion, that from the evidence we have received during the last few weeks, without being too optimistic, I really have a very strong feeling that we have got through our troubles. We know more about the direction in which to drill, and in which we are more likely to find oil, than we have done in the past. I have great hope that before another year comes round we shall be in a producing and profit-earning position.

The resolution was carried unanimously.

The Chairman then proposed the re-election as a director of Mr. Cosmo N. Peake. This was seconded by Mr. James Harrower, and carried unanimously.

On the motion of Mr. L. H. Davis, seconded by Mr. Brown, Messrs. Harmood Banner & Son were reappointed auditors.

Mr. Fleming, in moving a vote of thanks to the chairman and the board, said he was quite sure they were doing their best to look after the interests of the company.

The motion was duly seconded, and carried unanimously.

The Chairman briefly acknowledged the compliment, and the proceedings terminated.

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## THE CLYDE ADAMS PETROL ECONOMISER, LTD.

REGISTERED on May 18th by C. J. T. Birts, 5, Salter's Hall Court, Cannon Street, E.C. Capital, £2,000 (1,900 preference shares of £1 each and 2,000 ordinary shares of 1s. each). Objects: To carry on the business indicated by the title. Signatories: W. F. Clipston, 6, Idol Lane, Eastcheap, E.C., and W. Parker, 34, Great St. Helen's, E.C. First directors (who are to number not less than two) are W. F. Clipston and W. Parker. Secretary and registered office: B. Reeves, 6, Idol Lane, E.C. Private company.

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# THE BIBI-EIBAT OIL COMPANY, LTD.

## MR. HERBERT ALLEN ON THE COMPANY'S SUCCESS.

ON Tuesday the second ordinary general meeting of the Bibi-Eibat Oil Company, Limited, was held at River Plate House, Finsbury Circus, E.C. Mr. Herbert Allen (the chairman) presiding.

The Secretary (Mr. R. M. Allan, F.C.I.S.) having read the notice convening the meeting and the report of the auditors,

The Chairman rose to move the adoption of the balance-sheet and reports. In doing so he said: It is but little more than a year since I was addressing a meeting of the old Bibi-Eybat Petroleum Company, called to consider a scheme of reconstruction and my last words on that occasion were:—"The scheme is one which the board can confidently recommend for your approval." Well, with the evidence afforded by the report and accounts now in your hands I think it will be agreed that events have justified our faith, and I believe there are comparatively few instances where the reconstruction of a company has brought such a speedy reward to the shareholders. At the time I speak of we estimated the profits of the new company for the first year at £35,000, but in the actual result they have come out at about £36,000 for a period of 13 months. As you are aware, we own the entire share capital of a Russian company which works their oil plots at Bibi-Eibat, leased from the Russian Government, and our income is made up largely from the dividend we receive on those shares. As time passes we hope our other interests will equal, or perhaps even outweigh, those at Bibi-Eibat.

On the first year's operations in which this company has had any direct concern the Russian company improved its position, both as regards output and sales, and made a gross profit of about £49 000. From this there was deducted a sum of £1,500, being the percentage of profit which has to be set aside to reserve according to Russian law. Then there was the Government tax on profits amounting to £2,500, and after writing off for depreciation the liberal sum of £19,000, there remained a net balance of £26,315, which we received as dividend on our holding of shares in the Russian company. But we have other sources of income besides dividends from the Russian company, one of which is the interest we charge on our advances to that company, and these miscellaneous additions brought up the total revenue of the English company to £40,916, whilst our net profit after meeting administration expenses, debenture charges, and other outgoings, was £32,764, which is equal to nearly 14 per cent. on our subscribed capital. You will see, however, in the balance-sheet two items amounting to £11,218 for preliminary expenses, or, in other words, the expenses attending the late reconstruction and the underwriting of the capital. With most companies it is customary to write off these expenses over a period of years, but in our case we have preferred to rid ourselves of them by one effort and to charge them entirely against the profits of the past year, a course from which we shall feel the benefit next year, when our debenture service will require about £3,500 more than it does on the present occasion. This still leaves us with £21,546 for disposal, and our recommendation to the shareholders is that £17,813 shall be applied to the payment of a dividend of 9d. per 10s. share, or 7½ per cent., and £3,733 be carried forward. This, I think you will agree, is not a bad start for our first year, but it should not be difficult to improve upon when the Russian business feels the benefit of the capital expenditure provided for under the scheme of reconstruction. n this connection it may be useful to remember that to meet our full debenture service, pay 10 per cent. on the share capital, and redeem a proportionate number of income notes, require a um of only £33,000 per annum.

Surprise has been expressed in some quarters that we should be declaring a dividend of any kind so early in the career of he company; but perhaps it is overlooked that we took over a oing concern. At the same time I am not sure that the directors do not owe an apology to the shareholders for even suggesting a dividend, because in the present condition of the share markets any sort of announcement—good or bad—seems to have a depressing effect on quotations. On good news prices wobble; on no news they are put down; on bad news they are put down still more. As to dividends, for every 6d. paid the quotations seem to shrink a shilling. Taken as a whole the position of English oil companies operating in Russia was never better than at the present moment, and in the last few months there have been many favourable developments. In many other directions besides Russia there have been excellent developments, but throughout almost the whole oil share list we have seen nothing but shrinkage in prices, ranging in many cases up to 20 or 30 per cent. In many other sections of the stock markets the position is even worse than it is in oil.

Now let us turn to the balance-sheet, from which you will see that we are in the pleasant position of having ample liquid resources, our cash assets alone being over £100,000. Out of this we are under obligation to discharge, during this and next year, the debt of the Russian company to the Government for back royalties, in accordance with the scheme of reconstruction, but we shall still possess ample funds for the capital work contemplated at Bibi-Eibat and on our new properties. You may have noticed that for the last four months or so our production has been somewhat unsatisfactory in consequence of the collapse of our prolific No. 10 well. This morning, however, we are in receipt of a telegram saying the repairs are completed, and we can only hope that the well has not suffered through standing idle so long. Beyond the recovery from No. 10 it would be unwise to expect any material improvement in the output until we can bring in some new wells, and the first of these should be our No. 11 on plot 50. Work on this well was progressing favourably until last December, when, at a depth of 412 sagenes, we were the victims of one of those annoying occurrences to which we are subject in this business. The boring instruments became detached from the rods and dropped to the bottom of the well below the casing, and for over three months we were engaged in the tedious process of extracting them, which was successfully accomplished six or eight weeks ago. This well has since reached a depth of 421 sagenes (2,947 ft.), and in the ordinary course should be into the oil-sands which it is designed to tap at a depth of about 430 to 440 sagenes (3,080 ft.) by about the end of this year. There is a fountain source of a highly prolific character and though not hitherto tapped by this company, it has been well proved on neighbouring properties. With ordinary luck the completion of this well may easily revolutionise the fortunes of the company, particularly with its present low capitalisation.

We have no desire, however, to be dependent on sensational developments, however promising, but intend to fortify our position by more humdrum enterprises, and we have authorised the sinking of two more new wells—namely, one on plot 2 and one on plot 48—for you will remember that we have three plots at Bibi-Eibat, and incidentally I may mention that they are believed to give scope for almost as much drilling in the future as has been done on them in the past. The two new wells will, in the first instance, exploit shallower strata than No. 11, as it is intended to stop one at 260 to 265 sagenes, and the other at 230 to 235 sagenes. The latter well, however, will be drilled in such a manner as to admit of ultimately deepening to a lower stratum when the upper oil horizon has been exhausted. Although we are boring these two wells on the old percussion system I am inclined to think the time is not far distant when rotary drilling will play a prominent part in the Baku oil industry, and we are carefully watching the development of the rotary system in other countries and on other people's properties at Baku. The latest information to hand shows that of the 36 existing wells on our Bibi-Eibat properties 26 are producing, three are being deepened and two are under repair. The remaining five wells will be taken in hand for repair as opportunity arises. The 36 producing wells, even with the temporary stoppage of No. 10, are giving an average daily output of 497 poods, which is not far from the average of the whole Bibi-Eibat field.

I am sorry to say, by an oversight in the report, we omitted to mention that we have acquired for the company several freehold properties at Adji-Cabul, a new field situated about 13 miles from Baku, which is regarded with considerable favour by the most eminent geologists and petroleum engineers in Russia. We have also acquired on highly-favourable terms, both as to price and royalty, a zaiafka entitling us to 10 dessiatines, or 27 acres, of land on the new oilfield at Novo-Aldi, a few miles south-east of the town of Grosny. The position of this property is exceptionally favourable, being within a few hundred yards of the prolific plot of the North Caucasian Company, and equally near the Belik and Tchermoieff estates, of which so much is heard just now. All these lands were paid for prior to the making up of the accounts now before you, and our future burdens will be so much the lighter. As regards the Novo-Aldi property, I think I may say that we should have no difficulty in selling it at this moment at three or four times what we gave for it. Our aim in acquiring these new properties is to give us an outlet for our capital and energies in a field where we can work for our own benefit instead of for the benefit of the Russian Government, as is primarily the case at Bibi-Eibat. I do not know whether I am justified in saying that we have at last got to somewhat closer quarters with the Government in the matter of the reduced royalties which were promised us as long as four or five years ago. A good deal of correspondence has recently passed on the subject—not that that is anything new—but whether, if we do get any modification, it will be on terms worth having, I cannot say. Instead of paying a fixed royalty of 40 per cent. as we do at present, there is some talk of a sliding scale ranging from 15 per cent. to 35 per cent., according to the price of crude oil, but in return for this we are asked to guarantee to do a large amount of new boring, and you may be quite sure the authorities are not asking too little of us. However, nothing is yet settled, and in the meantime experience teaches us to be very suspicious of any concessions from the Russian Government.

Now, with regard to the future, I need scarcely remind you that our prosperity is mainly contingent upon three factors—namely, production, price and cost. The question of production, which is contingent on new boring, I have already dealt with. As to the operating expenses, under the able management of Mr. Mancho, to whom this company owes so much, they have already been got down to about the lowest possible level consistent with efficiency, so we have not much relief to look for in this direction unless we can find some means of pumping our wells, as is done in other countries, instead of bailing them as is the present practice at Baku. One of our principal expenses is fuel, and Mr. Mancho is fully alive to the importance of keeping this as low as possible by the utilisation of all available gas from the wells and by the employment of gas-oil motors. These motors are capable of running on gas alone, but in the event of failure of the gas supply they can readily be converted into internal-combustion oil-engines. So much for production and expenses, as to which we know to some extent where we are. But as regards prices, that is a very different matter. He would indeed be a wise man who could foresee the future course of prices for crude oil. Just now a big struggle is going on between two powerful groups at Baku for control of the market there, and some of our people tell us that that is the cause of the recent fall in prices, but I confess I am unable to follow their arguments. Struggles for control of a market usually mean high prices for the commodity affected. However, although the present price of 35 copecs per pood is a big drop on the price touched during the strike last August, still it is a remunerative price, and we producers will have little cause to grumble if it goes no lower. Mention of the strike reminds me that we were one of the very few companies whose men did not take part in it, for which great credit is due to Mr. Mancho. In conclusion, gentlemen, let me say that I have purposely refrained indulging in any cut-and-dried estimate of results for the current financial year, preferring to place you in possession of facts which will enable you to draw your own conclusions. The usual elements of speculation attending the business of oil production are well in evidence, but, on the other hand, we have several promising strings to our bow: our financial position is very sound and the potentialities of a prosperous future are not wanting. I beg to move:—"That the directors' report and accounts to March 31st, 1914, submitted to this meeting be and are hereby received and adopted."

Mr. Richard Barnett seconded the motion, which was carried unanimously, and a dividend of 9d. per share, or 7½ per cent., was declared.

The election of Mr. Richard Barnett as a director was unanimously confirmed, and Messrs. T. G. Haward & Co. having been reappointed auditors, a vote of thanks to the chairman and directors closed the meeting.

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## THE KEROSENE TRADE OF SOUTH MANCHURIA.

An American consular report from Newchwang, South Manchuria, on the oil trade of that section, says the imports of American kerosene increased from 6,658,225 gallons in 1912 to 8,247,587 gallons in 1913. Russian oil, none of which was imported in the preceding year, appears in the returns for 1913 to the extent of 1,158,748 gallons, but of Sumatra oil only 657,336 gallons were imported, as against 2,660,021 gallons in 1912. There had been no imports of Russian oil since 1910, when 221,110 gallons were brought in. The reason for the large importation of this oil was the shortage of Sumatra oil, which forced the Asiatic Petroleum Company to turn to Russia for supplies. Some 1,190,000 gallons of American oil were imported in bulk from California by that company during the year. This was the first importation of American oil into Newchwang in bulk, all oil thus far imported by the Standard Oil Company being tinned.

Deducting the imports of the American product made by the Asiatic Petroleum Company, it will be seen that the Standard Oil Company's imports increased in 1913 over those for 1912. A lack of adequate storage facilities was the only thing that prevented greater importations by that company as there was an increase in demand over the preceding year. This lack of storage facilities is to be remedied by the erection during the current year of a new installation. Congested conditions were heightened, moreover, by difficulties encountered in the navigation of the Liao river. At times, especially in the autumn after what was an unusually dry summer, the water in the river was so shallow that junks were able to carry only quarter cargoes.

◆

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & Co., 61, St. Mary Axe, E.C.

May 28th, 1914.

There are no further alterations in the official prices of Refined Petroleum, which remain as follows :—Russian, 7d. ; American, 7¼d.; American Water White, 8¼d.; Roumanian, 6¾d. ; Galician, 6¾d.

### LUBRICATING OILS

are unchanged, quotations being for :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 70s. per ton, in bulk, ex wharf.

### GAS OIL

3¼d. per gallon, in bulk, ex wharf, represents the current value.

### MOTOR SPIRIT.

The retail price in London for the best quality is 1s. 9d. per gallon and for the second quality 1s. 7d. per gallon.

### TURPENTINE.

Considerable business has been done during the week in the American Turpentine market, although prices are slightly lower, Spot being quoted 32s. 9d. ; June/August, 33s. ; September/December, 33s. 9d.

## LIVERPOOL.

May 28th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## INDIA.

BOMBAY, April 25th.

The following are the current prices of the Standard Oil Company of New York :—

| | Rs. | a. | p. | |
|---|---|---|---|---|
| Snowflake Brand, 150 deg., American ... | 6 | 0 | 2 | per case. |
| White Rose Brand, 150 deg., ,, ... | 5 | 12 | 2 | ,, |
| Chester Brand, 75 deg., Abel ,, ... | 5 | 2 | 2 | ,, |
| Devoe's Imp. Brilliant, 76 deg., Abel ... | 5 | 0 | 2 | ,, |
| Monkey Brand, 125 deg., American ... | 4 | 14 | 2 | ,, |
| Tiger Brand in tins, 125 deg., American ... | 4 | 15 | 2 | ,, |
| White Camelia Brand in tins, 125 deg. ... | 4 | 6 | 0 | per 2 tins. |
| Elephant Brand, 125 deg. (bulk in tins) ... | 4 | 6 | 0 | ,, |
| Elephant Brand, 125 deg. (bulk without tins) ... ... ... ... ... ... | 3 | 12 | 0 | per 8 I. gal. |
| Camel Brand, 125 deg. ... ... ... | 4 | 6 | 0 | per 2 tins. |

The prices of the Asiatic Petroleum Company, Ltd., are as follows :—

| | Rs. | a. | p. |
|---|---|---|---|
| Rising Sun Brand, Bulk, Loose, per unit ... ... ... | 3 | 14 | 0 |
| Rising Sun Brand, New Tins, per pair ... ... ... | 4 | 8 | 0 |
| Bull Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 12 | 0 |
| Bull Brand, New Tins, per pair ... ... ... ... | 4 | 1 | 6 |
| Swan Brand, Bulk, Loose, per unit ... ... ... ... | 3 | 2 | 6 |
| Swan Brand, New Tins, per pair ... ... ... ... | 3 | 12 | 6 |
| Anchor Tins, per pair ... ... .. ... ... ... | 4 | 9 | 0 |
| Shell 150 deg. cases, per case ... .. ... ... ... | 5 | 8 | 0 |
| Anchor cases, per case ... ... ... ... ... ... | 5 | 0 | 0 |

The following are the current prices of the Burmah Oil Company's production :—

| Bazaar Rates—Delivery charges extra. | Rs. | a. | p. |
|---|---|---|---|
| Kerosene Oil "Waterlily," per case of two tins ... ... | 5 | 4 | 6 |
| ,, Firefly, per case of two tins ... ... ... | 5 | 1 | 6 |
| ,, Chukker, per two tins ... ... ... ... | 4 | 6 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 12 | 6 |
| ,, Victoria, per two tins ... .. ... ... | 3 | 11 | 0 |
| ,, ,, per 8 gallons ... ... ... ... | 3 | 1 | 0 |
| Burmah Wax, per pound, 1st quality ... ... ... | 0 | 4 | 0 |
| ,, ,, ,, 2nd quality ... .. ... | 0 | 3 | 0 |
| ,, Candles, per pound ... .. ... ... ... | 0 | 4 | 0 |

## AMERICA.

NEW YORK, May 28th.

Refined, in cases, is still quoted at 11·10 ; Standard White, 8·60 ; Credit balances, 1·90.

PHILADELPHIA, May 28th.

Standard White is quoted at 8·60.

## RUSSIA.

BAKU, May 26th.

The tendency of benzine is lower, that of gas oil and lubricating oils steady. Crude oil is quoted at 35-36 copecs per pood spot. Kerosene, 45½–46 copecs. Residuals, 33¼–34¼ copecs.

## ROUMANIA.

May 26th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·20–7·50 |
| ,, ,, ,, | Tzintea ... | 5·80–6·50 |
| ,, ,, ,, | Policiori... | 6·25–6·50 |
| ,, ,, ,, | Bordeni ... | 8·75–9·00 |
| ,, ,, ,, | Bana ... | 9·00–9 50 |
| ,, ,, ,, | Baicoi ... | 7·50–8·50 |
| Paraffin ... ... ... ... ... | | 125 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710-0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... ... | 8·00 |

## GERMANY.

HAMBURG, May 27th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

May 26th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date May 28th, as follows :—

The market continues depressed and prices are unchanged as under :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾ × 14 | 124 sheets | 110 lbs. ... | 13/– | per box. |
| 1c | 20 × 10 | 225 ,, | 156 ,, ... | 18/3 | ,, |

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

Specially prepared for this Journal by the Customs House.

FOR THE WEEK ENDED MAY 25th, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| May. | London— | | | |
| 19 | Produce Brokers Co. ... | Lub. | 7,800 | Philadel. |
| 19 | Anglo-American Oil Co. ... | " | 10,000 | New York |
| 19 | Savanah Chemical Co. ... | " | 6,000 | " |
| 19 | Scott's Wharf ... ... | " | 5,000 | " |
| 19 | Port Authority ... ... | " | 220 | Hamburg |
| 20 | " ... ... | " | 580 | Antwerp |
| 20 | Hanseatic Maritime Agency | " | 200 | Bremen |
| 20 | Port Authority ... ... | " | 2,430 | Hamburg |
| 20 | Vacuum Oil Co. ... ... | " | 7,410 | New York |
| 20 | London Welsh St'mship Co. | " | 720 | Philadel. |
| 21 | Port Authority ... ... | " | 960 | Hamburg |
| 21 | E. G. Boize ... ... ... | Lub. Gr. | 530 | " |
| 21 | British Petroleum Co. ... | Gas | 127,000 | Rotterdam |
| 21 | Anglo-American Oil Co. ... | Lamp | 1,884,300 | Sabine |
| 22 | Lubricating & Fuel Oils Co. | Lub. | 4,920 | Philadel. |
| 22 | Bowring Petroleum Co. ... | " | 5,470 | " |
| 22 | J. W. Scarkey ... ... | " | 91,630 | " |
| 22 | Bramwell, Fern & Co. ... | " | 7,510 | " |
| 23 | Worthington & Boler ... | " | 8,000 | " |
| 23 | Mercantile Lighterage Co.... | " | 6,400 | " |
| 23 | British Petroleum Co. ... | Gas | 728,000 | Port Arthur |
| 23 | Asiatic Petroleum Co. ... | Benzine | 207,200 | Kustendje |
| 25 | A. Weir & Co. ... ... | Spirit | 1,100 | Rotterdam |
| 25 | Snowdon, Sons & Co., Ltd. ... | Lub. | 4,090 | Hamburg |
| 25 | Port Authority ... ... | " | 7,400 | New York |
| 25 | Langley, Smith & Co. ... | " | 5,290 | " |
| 25 | Anglo-American Oil Co. ... | " | 29,160 | Philadel. |
| 25 | Port Authority ... .. | " | 400 | Hamburg |
| 25 | " ... ... | " | 240 | " |
| | Liverpool— | | | |
| 19 | Bramwell, Fern & Co. ... | Lub. Gr. | 700 | Philadel. |
| 19 | C. C. Wakefield & Co. ... | Lub. | 5,220 | " |
| 19 | White Star Line ... ... | " | 80 | New York |
| 19 | Huxley & Co. ... ... | " | 1,110 | " |
| 19 | Vacuum Oil Co. ... ... | " | 270 | " |
| 19 | J. T. Fletcher & Co. ... | Lub. Gr. | 40 | Antwerp |
| 19 | Meade-King, Robinson & Co. | Benzine | 50,000 | Rotterdam |
| 22 | Burnaby & Chantrell ... | Lub. Gr. | 310 | Hamburg |
| 22 | Vacuum Oil Co. ... ... | " " | 240 | New York |
| 22 | " ... ... | Lub. | 65,340 | " |
| 22 | " ... ... | " | 26,600 | " |
| 25 | White Star Line ... ... | " | 1,810 | " |
| 25 | Bowring Petroleum Co. ... | " | 910 | " |
| 25 | A. Hopps & Sons, Ltd. ... | Lub. Resid. | 2,720 | Quebec |
| 25 | " " ... | M. Colza | 5,200 | Baltimore |
| 25 | " " ... | Lub. | 2.720 | " |
| 25 | C. W. Field ... ... ... | " | 210 | Antwerp |
| | Boston— | | | |
| 18 | W. F. Beaumont ... ... | " | 480 | Hamburg |
| 22 | " ... ... | " | 480 | " |
| | Bristol— | | | |
| 14/4 | Anglo-American Oil Co. ... | Lamp | 41,500 | New York |
| 20 | Anglo-Bosphorus Oil Co. ... | Lub. Gr. | 940 | Hamburg |
| 21 | Pickford's ... ... ... | " " | 1,100 | " |
| 22 | C. Hill & Sons ... ... | Lub. | 5,400 | New York |
| 22 | " ... ... | Lub. Gr. | 3,000 | " |
| 22 | Ford & Canning ... ... | Lub. | 7,150 | " |
| 25 | C. Hill & Sons ... ... | " | 2,800 | " |
| | Cardiff— | | | |
| 20 | Bristol Steam Navig. Co. ... | " | 3,080 | Antwerp |
| 22 | Furness, Witby & Co. ... | Lub. Gr. and Bricks | 500 | " |
| | Goole— | | | |
| 6 | Goole Steamship Co. ... | Lub. | 12,560 | Hamburg |
| 18 | " " ... | " | 600 | " |
| | Grimsby— | | | |
| 16 | C. Bradford ... ... ... | " | 50 | Antwerp |
| | Harwich— | | | |
| 19 | Great Eastern Railway ... | " | 30 | " |
| 21 | " " ... | " | 400 | Hamburg |
| 21 | " " ... | " | 70 | Antwerp |
| 21 | " " ... | " | 240 | " |
| | Hull— | | | |
| 12/3 | Hull & Netherlands Steamship Co. | Crude | 940 | Rotterdam |
| 14/3 | " " ... | " | 1,000 | " |
| 17/4 | " " ... | " | 1,000 | " |
| May. | Hull— | | | |
| 19 | T. Wilson, Sons & Co. ... | Lub. | 22,320 | New York |
| 20 | W. Gilyott & Co. ... .. | " | 1,480 | " |
| 20 | " ... ... | " | 2,800 | " |
| 20 | Hull & Netherlands S.S. Co. | " | 120 | Rotterdam |
| 21 | W. Gilyott & Co. ... ... | " | 200 | New York |
| 21 | T. Wilson, Sons & Co. ... | " | 800 | Riga |
| 21 | Wilson's & N. E. Railway ... | " | 120 | Hamburg |
| 21 | " " ... | " | 4,000 | Antwerp |
| 21 | " " ... | " | 100 | Dunkirk |
| 25 | W. Brown, Atkinson & Co. | Lamp | 1,271,000 | Kustendje |
| 25 | Wilson's & N. E. Railway ... | Lub. | 1,280 | Hamburg |
| | Manchester— | | | |
| 19 | D. Currie & Co. ... .. | Lub. Gr. | 2,800 | " |
| 20 | " ... ... | Lub. | 210 | " |
| 20 | J. T. Fletcher & Co. ... ... | Lub. Gr. | 400 | Antwerp |
| 20 | " ... ... | Lub. | 360 | " |
| 21 | G. B. Taylor... ... ... | " | 1,080 | Riga |
| 21 | " ... ... ... | " | 40 | Antwerp |
| 21 | J. T. Fletcher & Co.... ... | " | 120 | Ghent |
| 22 | Liverpool Storage Co. ... | " | 3,787 | New York |
| 22 | " " ... | " | 5,200 | " |
| 22 | " " ... | " | 98,719 | " |
| | Newcastle— | | | |
| 21 | Tyne-Tees Steamship Co. ... | " | 4,240 | Antwerp |
| 21 | " " ... | " | 3,960 | Hamburg |
| 23 | P. H. Matthiessen & Co. .. | " | 180 | Bergen |
| 23 | " " ... | " | 221 | " |
| | Portsmouth— | | | |
| 22 | Bristol Steam Navig. Co. ... | " | 400 | Hamburg |
| | Southampton— | | | |
| 19 | P. E. Curry ... ... ... | " | 1,010 | New York |
| | Swansea— | | | |
| 19 | C. F. Frankfort ... ... | Lub. Gr. | 250 | Hamburg |
| 23 | E. Risoy ... ... ... | Lub. | 130 | Bergen |
| | Glasgow— | | | |
| 20 | Clyde Shipping Co. ... ... | " | 1,790 | Antwerp |
| 20 | Allan Bros. & Co. ... ... | " | 37,550 | Philadel. |
| 25 | Anchor Line ... ... | " | 17,040 | New York |
| 25 | " ... ... | " | 19,710 | " |
| | Grangemouth— | | | |
| 18 | Jas. Currie & Co. ... ... | " | 80 | Hamburg |
| | Leith— | | | |
| 21 | Jas. Currie & Co. ... ... | " | 720 | " |
| 21 | G. Gibson & Co. ... ... | " | 2.000 | Antwerp |
| 21 | " ... ... | " | 440 | " |
| 21 | Jas. Currie & Co. ... ... | " | 240 | Hamburg |
| 21 | G. Gibson & Co. ... ... | " | 2,080 | Antwerp |
| | Belfast— | | | |
| 19 | J. C. Pinkerton & Co. ... | " | 50 | " |
| 20 | " " .. | " | 40 | Hamburg |
| 21 | " " ... | " | 120 | " |
| 21 | G. Heyn & Sons ... ... | " | 130 | " |
| | Deduct— | | | |
| | Bristol— | | | |
| 24/3 | Anglo-American Oil Co. ... | " | 3,950 | New York |
| 24/3 | " " ... | Lamp | 4,420 | " |
| | Cardiff— | | | |
| 15/4 | J. D. Thomas & Co. ... | Lub. Gr. | 170 | Rotterdam |
| | | | 4,907.547 | |

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From Lloyd's

May 27th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | San Francisco | Pisagua | L. May 7 |
| AMERICAN | Antwerp | New York | Arr. May 25 |
| APPALACHEE* | Avonmouth | Philadelphia. | 110 m. S.W. Brow Head May 15 |
| APSCHERON | Batoum | Genoa | Arr. May 22 |
| ARAL | New Orleans | La Pallice | L. Norfolk, Va., May 9 |
| ARAS | Newport | Port Arthur. | Pd. Brow Head May 8 |
| ARCA | Rangoon | Port Said | L. Colombo May 16 |
| ARTHUR VON GWINNER | Kustendje | — | Pd. Dard. May 22 |
| ASHTABULA* | Belfast | New York | Arr. May 24 |
| ASTRAKHAN | Tyne | Sabine | Pd. Dover May 14 |
| AUREOLE | Philadelphia. | Barrow | Pd. Delaware B'kwater May 16 |
| AZOV | San Francisco | Arica | Arr. ab't May 15 |
| BAKU STANDARD | Portland | Philadelphia. | Arr. Barry Ap. 11. In port May 19 |
| BALAKANI □ | Manchester | New York | Arr. May 23 |
| BARNESON | San Francisco | London | L. Taltal May 15 |
| BATOUM | Salzaete | Amsterdam | Arr. May 23 |
| BAYONNE | Sabine | Malta | Arr. May 20 |
| BEACON LIGHT | Tyne | Port Arthur | L. May 11 |
| BEECHWOOD | Cienfuegos | Liverpool | Arr. May 26 |
| BLOOMFIELD | Galveston | Spezia | Pd. Gib. May 21 |
| BORJOM | Batoum | Dunkirk | Pd. Dard. May 20 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Sp. April 25, 1 N. 31 W. |
| BRILLIANT | New York | Wilhelmsh'v'n | L. May 18 |
| BRITISH SUN | Manchester | Savannah | Off Brow Head May 17 |
| BROADMAYNE | Tyne | New York | Pd. Dunnet Head May 20 |
| BUFFALO | San Francisco | Hankow | Arr. ab't May 21 |
| BULLMOUTH △ | Hong Kong | Balek Pappan | Arr. May 20 |
| BULYSSES △ | Novorossisk | Singapore | Arr. Colombo about May 22 |
| BURGERMEISTER PETERSEN | Helsingborg. | Sabine | Pd. Sand Key about May 20 |
| BUYO MARU | Bombay | Rangoon | L. May 5 |
| C. A. CANFIELD* | New Orleans | Tampico | L. Pt. Eads May 19 |
| CALCUTTA (Br. Bq.) | San Francisco | Yokohama | L. April 11 |
| CAMILLO | Tyne | Port Arthur. | Pd. Sand Key about May 25 |
| CAPTAIN A.F. LUCAS | — | — | T. U.S. Pacific |
| CARDIUM △ | Thames Haven | Tyne | Arr. May 24 |
| CARPATHIAN □ | Port Arthur. | London | Arr. May 26 |
| CASSIS | New York | Port Said | Arr. May 22 |
| CASTOR | Cochin | Singapore | Arr. May 10 |
| CAUCASIAN □ | Grangemouth | Galveston | Pd. Beachy Head May 10 |
| CHARLES E. HARWOOD | Sabine | Tampico | L. May 10 |
| CHARLOIS | Rotterdam | New York | Pd. Lizard May 21 |
| CHATHAM | Tampico | New Orleans. | Arr. May 14 |
| CHESTER | Kustendje | Antwerp | Pd. Dard. May 19 |
| CHEYENNE | Thames Haven | Tyne | Arr. May 22 |
| CIRCASSIAN PRINCE | — | — | T. W. Coast S. Am. |
| CITY OF EVERETT | Sabine | Boston | Arr. Apr. 11 |
| CLAM △ | Singapore | Balek Pappan | L. May 21 |
| CLEARFIELD | Taranto | Port Arthur. | Arr. May 17 |
| COMANCHEE | Sabine | London | Arr. May 22 |
| CONCH △ | Gemsah | Sabang | L. Colombo May 18 |
| CONRAD MOHR | Bergen | New York | Arr. May 18 |
| CORDELIA | San Luis | Taltal | L. April 25 |
| COWRIE △ | Chinkiang | Hankow | Arr. May 19 |
| CURRIER | Matanzas | Boston | Arr. May 12 |
| CYMBELINE | Port Arthur. | U.K. | L. May 19 |
| CYRENA | Sydney | — | Off Hannibal Island May 25 |
| CZAR NICOLAI II. | Hamburg | Batoum | P. Gib. May 21 |
| DAGHESTAN | Philadelphia. | Genoa | Pd. Sagres May 21 |
| DANUBIAN □ | Hamburg | Port Arthur. | Arr. May 23 |
| DAYLIGHT (Br. Bq.) | Philadelphia. | Hiogo | Pd. Delaware Breakw'r May 2 |
| DELAWARE* | Sunderland | Tyne | Arr. Apr. 20. In port May 12 |
| DELPHIN | Rotterdam | Baton Rouge | Pd. Lizard May 18 |
| DERBENT | Antwerp | Batoum | Pd. Dover May 24 |
| DESABLA | Taltal | San Pedro | L. May 15 |
| DEUTSCHLAND | Hamburg | Philadelphia. | Arr. ab't May 25 |
| DIAMANT | Philadelphia. | Amsterdam | L. May 20 |
| DONAX | Rotterdam | — | Arr. Port Said May 21 |
| EBURNA △ | — | Tyne | Arr. May 23 |
| EDWARD L. DOHENEY | Port Aransas | Tampico | L. May 8 |
| EL LOBO | Callao | Lobitos | L. May 17 |
| EL SEGUNDO | San Francisco | Seattle | Arr. May 7 |
| EL TORO | New Orleans | Campana | Arr. Buenos Aires ab't May 18 |
| ELAX △ | Novorossisk | Rotterdam | Arr. Mar. 30. In port May 18 |
| ELBRUZ | Tyne | Amsterdam | In port May 18 |
| ELISE MARIE | Rotterdam | New York | Pd. Prawle Point May 15 |
| ELSINORE | Antofagasta | Port San Luis | L. May 7 |
| EMANUEL NOBEL | Batoum | Antwerp | Pd. Dard. May 23 |
| ENERGIE | Havana | New York | Arr. May 22 |
| ERIVAN | Dunkirk | Kustendje | Pd. Dard. May 22 |
| ESCALONA | Port Arthur | Brest | L. May 15 |
| ESTURIA | Saitozaki | Taketozo | L. May 16 |
| EUPION | Claymont | Matanzas | Pd. Delaware Breakw'r May 16 |
| EUPLECTELA △ | Singapore | Adelaide | L. May 10 |
| EXCELSIOR | Tyne | New York | Pd. Dunnet Head May 14 |
| F. A. TAMPLIN | London | Puerto Mexico | Pd. Dungeness May 17 |
| FRANCE MARIE (Belgian Ship) | — | — | T. b'tw'n Tampico and Pt. Arthur |
| FUMI MARU | — | Yokohama | Arr. April 5 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port May 8 |
| GENESSE* | Maryport | New York | Arr. May 17 |
| GEORGIAN PRINCE | Tyne | Port Arthur | Arr. ab't May 25 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Eagle Harb'r | San Pedro | L. Astoria May 5 |
| HAGEN | New York | Hamburg | Arr. May 9. In port May 11 |
| HAINAUT (Barge) | Galveston | New Orleans | L. May 7 |
| HARPORT | Pisagua | San Francisco | Arr. May 2. In port May 5 |
| HARRY LUCKENBACH | Tampa | Baltimore | Arr. April 4 |
| HAVRE | Townsville | Singapore | Arr. April 29 |
| HELIOS | Hamburg | New York | Arr. May 22 |
| HERA | Rotterdam | New York | Pd. Lizard May 24 |
| HERBERT G. WYLIE | Galveston | Tampico | L. May 5 |
| HERMIONE | Port Arthur. | Sheerness | L. Norfolk, Va., May 16 |
| HESPERUS | Tocopilla | San Francisco | Arr. ab't May 18 |
| HORLEY | New York | Tampico | L. May 15 |
| HOTHAM NEWTON | Port Arthur. | Toulon | L. Gib. May 14 |
| HYRCANIA | Sheerness | — | Pd. Lizard May 26 |
| ILLINOIS | New York | Port Arthur. | Arr. May 12 |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IMPOCO | Savona | Portici | L. May 20 |
| IROQUOIS (Towing Barge Navahoe) | New York | London | L. May 16 |
| J. B. AUG. KESSLER △ | Thames Haven | Rotterdam | Arr. May 18 |
| J. OSWALD BOYD | Port Aransas | Tampico | L. April 5 |
| JULES HENRY (Fr. Bq.) | Amsterdam | Kustendje | Pd. Dard. May 23 |
| JUNO △ | — | Palembang | Arr. May 11 |
| JUPITER | Hamburg | New York | Arr. May 21 |
| KANAKUK | Bombay | San Francisco | L. April 15 |
| KASBEK | Batoum | Rouen | Pd. Dard. May 18 |
| KIOWA | Stettin | Batoum | 20 m. S. Lands End May 12 |
| KIYO MARU | Valparaiso | Callao | Arr. ab't May 12 |
| KOMETA | Kustendje | Rouen | Sunk by explosion off Sidi Ferruch April 26 |
| KREMLIN | Tyne | Batoum | Pd. Sagres May 18 |
| KURA | Penarth | Kustendje | Pd. Dard. May 24 |
| LA CAMPINE | New York | Antwerp | Arr. May 22 |
| LA FLANDRE | Antwerp | New York | Pd. Zeebrugge May 13 |
| LA HABRE | Port San Luis | — | L. May 16 |
| LA HESBAYE | Antwerp | New York | Pd. Lizard May 13 |
| LACKAWANNA* | New York | Manchester | Arr. May 13. In port May 19 |
| LAMPO | Messina | Philadelphia. | Arr. May 15 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LE COQ □ | New York | Bordeaux | Arr. R. Gironde May 24 |
| LEDA | Baton Rouge | Hamburg | Arr. May 21 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port May 18 |
| LUCELLUM | Port Arthur. | Portsmouth | Pd. Norfolk, Va., May 18 |
| LUCERNA | Gemsah | Suez | Arr. May 23 |
| LUCIGEN | Port Victoria | Abadan | Pd. Perim May 13 |
| LUCILINE □ | New York | Rouen | Pd. Ushant May 24 |
| LUMEN | Kustendje | Spezia | Arr. May 22 |
| LUX □ | Barcelona | New York | Arr. May 22 |
| LUZ BLANCA | San Francisco | Payta | L. May 16 |
| MAKKAVEI | Kustendje | Odessa | Arr. May 14 |
| MANNHEIM | Copenhagen | New York | Arr. ab't May 21 |
| MARGARETHA | Tyne | Kustendje | Pd. Gib. May 19 |
| MASCONOMO | Shanghai | San Francisco | Arr. May 16 |
| MASSASOIT | Colombo | — | Pd. Perim May 25 |
| MEPPEN | Alexandria | Kustendje | Arr. May 20 |
| METEOR | Batoum | Vladivostock. | Arr. Singapore ab't May 21 |
| MEXICAN PRINCE | Balek Pappan | Singapore | L. May 18 |
| MIJDRECHT | Braila | Hamburg | In R. Hoehlbrand May 26 |
| MINA BREA | San Francisco | Yokohama | Arr. ab't May 11 |
| MIRA | Tyne | Port Arthur | Spoken May 14, 47 N., 39 W. |
| MITRA △ | Rangoon | — | Pd. Lundy Island May 26 |
| MOHAWK* | New York | Tuxpan | L. Nassau May 10 |
| MOHICAN | Port Arthur | Swinemunde. | L. May 16 |
| MUREX △ | Sydney | Balek Pappan | Arr. May 19 |
| NARRAGANSETT | London | New York | Arr. May 19 |
| NATICA △ | Batoum | Port Said | Pd. Dard. May 24 |
| NELSON | Philadelphia. | Port Arthur | Pd. Delaware May 9 |
| NEW YORK* | Baton Rouge | Rotterdam | Pd. Prawle Point May 23 |
| NIAGARA | Shanghai | San Francisco | Arr. ab't May 25 |
| NORMAN BRIDGE | Aransas | Tampico | L. May 16 |
| OAKWOOD | Liverpool | Cienfuegos | L. May 16 |
| OBERON | Panama | San Luis | L. May 8 |
| OCEAN | Rotterdam | Philadelphia. | L. May 14 |
| OILFIELD | New Orleans | Gothenburg | Pd. Cape Wrath May 26 |
| ORIFLAMME □ | Cette | Kustendje | L. May 23 |
| OSAGE | Philadelphia. | — | Pd. Sand Key May 14 |
| OTTAWA* | London | New Orleans. | Arr. Norfolk, Va., ab't May 23 |
| OURAL | Tyne | Kustendje | Pd. Dard. May 23 |
| PALEMBANG △ | Colombo | Abadan | L. Karachi May 21 |
| PATELLA △ | Singapore | — | L. May 15 |
| PAUL PAIX | Tees | Kustendje | Pd. Dover May 23 |
| PAULA | Sabine | Dantzig | Pd. Cape Wrath May 19 |
| PAWNEE | Novorossisk | Rotterdam | Pd. Dard. May 18 |
| PECTAN | Antofagasta | Port San Luis | Arr. ab't April 30 |
| PENNOIL | Philadelphia. | Hamburg | Arr. May 19 |
| PETROLEINE | Philadelphia. | Blaye | Pd. Delaware Breakw'r May 13 |
| PETROLEUM | Sheerness | Portland | Arr. May 6 |
| PHOEBUS | San Francisco | Pisagua | Arr. May 9 |
| PINNA □ | Cardiff | Port Arthur. | Pd. Barry Island May 20 |
| PONUS | San Francisco | Calcutta | Arr. April 29 |
| POTOMAC* | Sabine | Liverpool | Arr. May 6 |
| POWHATTAN | Barrow | New York | L. May 21 |
| PROMETHEUS | San Francisco | Pisagua | L. May 6 |
| PRUDENTIA | New York | Norfolk, Va. | L. May 17 |
| PURELIGHT | Hamburg | Port Arthur | Arr. May 16 |
| QUEVILLY (Fr. Bq.) | Rouen | New York | Arr. May 10 |
| RADIOLEINE | New Orleans. | Cette | Pd. Sand Key May 13 |
| RANELLA △ | Batoum | Singapore | L. Sabang May 19 |
| RENDOVA (Br. Bq.) | Seville | New York | L. May 16 |
| RICHMOND | San Francisco | Seattle | L. April 19 |
| RION | Tyne | Port Arthur | Arr. ab't May 24 |
| ROCK LIGHT □ | Hull | New Orleans | Off Wight May 25 |
| ROMANY △ | Kustendje | Rotterdam | Pd. Gib. May 23 |
| ROSALIND | Portsmouth | Port Arthur. | Pd. Lizard May 22 |
| ROTTERDAM | Rotterdam | New York | Arr. May 17 |
| ROUMANIAN □ | Amsterdam | New Orleans. | Arr. May 24 |
| ROUM'NIAN PRINCE | — | Port Arthur | Arr. May 19 |
| RUSSIAN PRINCE | — | Aransas | Arr. May 21 |
| SABINE RICKMERS | Hong Kong | Foochow | Arr. May 20 |
| SALAHADJI △ | Kobe | Aroe Bay | L. May 8 |
| SAMOSET | Bombay | Singapore | Arr. ab't May 21 |
| SAN ANTONIO | Rotterdam | Tuxpan | Arr. Sand Key about May 2 |
| SAN BERNARDO | Rotterdam | London | Arr. May 24 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | London | Jacksonville. | 170 m. S.W. Brow Head May 18 |
| SAN EDUARDO | Tuxpan | — | L. ab't May 6 |
| SAN FRATERNO | Southampton | Mexico | Arr. New Orleans May 17 |
| SAN GREGORIO | Tuxpan | New York | Arr. May 19 |
| SAN HILARIO | London | Puerto Mexico | Arr. May 9 |
| SAN ISIDORO | Tuxpan | New York | Arr. May 22 |
| SAN JERONIMO | Thames Haven | — | Pd. Dover May 26 |
| SAN JOAQUIN | Port San Luis | Iquique | Arr. May 11 |
| SAN LORENZO | Oran | Tuxpan | L. May 18 |
| SAN MELITO | Tyne | Mexico | 102 m. S. Brow Head May 4 |
| SAN RICARDO | Portsmouth | Tyne | Arr. May 20 |
| SAN SILVESTRE | Manchester | Texas | Pd. Fastnet May 23 |
| SAN TIRSO | Trieste | Puerto Mexico | Pd. Sand Key May 16 |
| SAN URBANO | Rio Janeiro | Tuxpan | L. May 5 |
| SAN VALERIO | Nassau | Tuxpan | L. May 9 |
| SAN WILFRIDO | Norfolk, Va. | Hamburg | L. May 12 |
| SAN ZEFERINO | Tyne | Puerto Mexico | Cl. May 25 |
| SANTA MARIA | — | Coronel | Arr. ab't May 8 |
| SANTA RITA | Hilo | Port San Luis | L. May 1 |
| SATANTA | Karachi | Colombo | Arr. ab't May 25 |
| SAXOLEINE | Blaye | New York | Arr. May 25 |
| SEBASTIAN | Kustendje | Havre | Arr. Malta May 15 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port May 11 |
| SEQUOYA | Tientsin | Japan | L. May 5 |
| SERVIAN □ | Port Arthur | Avonmouth | L. May 18 |
| SHABONEE | San Francisco | Hong Kong | L. April 28 |
| SILVIA | Achar | U.K. | Arr. Suez May 18 |
| SIOUX | Iquique | Payta | Arr. ab't May 25 |
| SIRIUS (Ger.) | Kustendje | Vallo | Arr. May 21 |
| SOCONY | New York | Port Arthur | L. May 6 |
| SOYO MARU | Perim | Sabang | L. April 15 |
| SPLENDOR | Savona | Baton Rouge | Pd. Gib. May 15 |
| STAG | Liverpool | Antilla | Arr. May 20 |
| STANDARD | Sabine | Montreal | Arr. May 25 |
| STROMBUS △ | Sheerness | Port Arthur. | Pd. Sand Key ab't May 25 |
| SULTAN VAN LANGKAT △ | Sydney, N.S.W. | Newcastle, N.S.W. | L. May 21 |
| SUNLIGHT (Br. Bq.) | Liverpool | Macoris | Arr. May 15 |
| SURAM | Kustendje | Hull | Arr. May 24 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port May 12 |
| SVIET | Alexandria | Kustendje | Cl. Constantinople May 18 |
| TASCALUSAH | Calcutta | San Francisco | Arr. May 5 |
| TATARRAX | San Francisco | Satosaki | L. May 12 |
| TEAKWOOD | Pembroke | New York | Pd. Fastnet May 16 |
| TECUMSOH | New Orleans | Tuxpan | Cl. May 16 |
| TELENA △ | Colombo | Gemsah | Pd. Perim May 16 |
| TEREK | Manchester | Batoum | Pd. Gib. May 18 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. In port May 5 |
| TIFLIS | Braila | Kustendje | Arr. May 20 |
| TONAWANDA* | Antwerp | New Orleans | 100 m. S. of Brow Head May 18 |
| TRINCULO | Victoria, B.C. | Port San Luis | Arr. May 1 |
| TRINIDADIAN | Galveston | Port Arthur | Arr. May 3 |
| TRITON | Rotterdam | Antwerp | Arr. May 23 |
| TROCAS △ | Fremantle | Melbourne | L. May 17 |
| TURBO △ | Sabang | Suez | Arr. May 22 |
| UNCAS | San Francisco | Moji | L. May 8 |
| VEDRA | Tyne | Sabine | Pd. Prawle Point May 9 |
| VILLE DE DIEPPE (Norwegian Barque) | La Pallice | Tyne | Arr. Apr. 22. In port May 19 |
| VITRUVIA | Novorossisk | Thames Haven | Pd. Dard. May 21 |
| VOLCANUS △ | Palembang | Tjilatjap | L. May 20 |
| VOLUTE △ | Tyne | Malta | Pd. Sagres May 25 |
| WABASHA | San Francisco | Shanghai | Arr. ab't May 12 |
| WANETA | Galveston | New Orleans. | Arr. May 9 |
| WAPELLO | Belfast | Philadelphia. | Pd. Inishtrahull May 19 |
| WASHINGTON | Philadelphia. | London | Pd. Delaware Br'kw't'r May 15 |
| WEEHAWKEN | Antwerp | Tyne | Arr. May 23 |
| WIELDRECHT | Kustendje | Bizerta | Pd. Dard. May 24 |
| WILLIAM F. HERRIN | — | — | T. Pacific Coast of N. America |
| WILLKOMMEN | Philadelphia. | Copenhagen | L. May 21 |
| WINAMAC | San Francisco | Antofagasta | L. May 15 |
| WOTAN | New York | Hamburg | L. May 21 |

# The Petroleum Review.

Founded by PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* REVIEW.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Government and the Anglo-Persian Agreement.

THE numerous letters which we have received during the present week from oil men protesting against the action of the British Government in regard to its gigantic subsidy for the Anglo-Persian Oil Company eloquently point to the great interest which those associated with the petroleum industry are taking in the important question. That the matter will not be allowed to remain where it is at present is evident, and already we understand several Members of Parliament have expressed their determination to insist upon a close investigation of the circumstances which have led the Government to take such a step. As Sir Marcus Samuel stated at last week's meeting of the "Flower" Motor Ship Company, it is amazing that the Admiralty and their advisers should have selected an enterprise in Persia for their support just at the very moment when supplies in British territory and under British jurisdiction are making rapid and most satisfactory progress. There is no doubt that had Egypt or Trinidad been chosen for Government support by the Government, their action would not have aroused the slightest adverse criticism.

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### American Refiners' Protest.

THE proposal of the United States Government to construct a pipeline and erect a refinery in order to assure itself of a supply of oil fuel for its requirements, has called forth considerable indignation from the in-lependent refiners of Kansas and Oklahoma, who not nnaturally strongly object to the Government ntering the petroleum industry. As in the case of he British Government, so with the Government of he States—it has suggested a proposal which not only avours of the absurd, but which cannot be productive of the slightest good if carried into effect. With the enormous output of fuel oils in America, the Government can without any difficulty secure at rock bottom prices all the fuel oils it requires, and yet in the face of this fact—which is quite common knowledge—it proposes to construct a line from the Oklahoma fields so as to be in a position to transport its own fuel. But it proposes to do more, for the Oklahama oils are of a high grade, and therefore before they can be suitable as fuel, the more volatile contents have to be removed, a necessity which will mean the Government becoming a refiner. The Western Petroleum Refiners Association have made a strong protest, and their letter, which is reproduced upon other pages in this issue, is well worth perusal. It puts forward the strong case which the refiners undoubtedly have, and should cause the Government to drop the proposition altogether.

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### A Record Month for Petroleum Imports.

MAY constituted a record month for the import of petroleum products into the United Kingdom, for the total amount received reached 41,500,000 gallons. The import of illuminating oil amounted to 14,600,000 gallons, taken by London, Manchester, Bristol, Liverpool, Hull, Dublin and Belfast, while motor spirit was imported to the extent of 10,300,000 gallons. Of this great quantity London took one-half, the rest going into the bulk storages at Bristol, Barrow, Hull, Liverpool and Granton. Lubricating oil imports exceeded 6,800,000 gallons during the month, and solar oil, the majority of which came to London, was received to almost a similar amount.

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### Some Interesting Details concerning Grosny.

SOME interesting details are given in the current issue of the *Neftannoie Dielo* concerning the Grosny fields and their production, which, as is known, now yield on the average about 7,000,000 poods per month. At the present time, the greatest producing concern is the Akhverdoff Company, which has ninety-two producing wells on eighteen plots, and for March produced 2,825,000 poods. The second position is taken by the North Caucasian Oil Fields, Ltd., whose March output amounted to 1,660,000 poods. Its production of crude oil, however, is more favourable than may at first sight appear when compared with the Akhverdoff Company, for while its production is considerably more than one-half that of the Akhverdoff Company, the yield is derived from only thirty-one producing wells, and from only one-half the number of plots. Then comes the Spies Company, which, with its fifty-eight producing wells on twenty-three plots, had a total output in March of about one and a-quarter million poods, while fourth in the list is the Russian Standard with an output of 1,098,000 poods for the month from forty-four wells.

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## LAUNCH OF THE "ABELIA."

Yesterday (Friday) afternoon, from the Walker yards of Sir W. G. Armstrong, Whitworth & Co., there was launched the motor vessel "Abelia"—the second of the fleet of motor-driven vessels for the Flower Motor Ship Company, Ltd., of which Messrs. M. Samuel & Co., London, are the managers. A report of the launch will appear in the next issue of the Review.

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Anglo-Egyptian Oilfields, Ltd.—The production of crude oil at Gemsah for the week ended June 2nd was 2,425 tons, as compared with an output of 2,306 tons for the preceding week.

**The Government and Oil Fuel.**

A GENERAL MEETING of Members of the Oil Trade and Gentlemen associated with the Petroleum Industry will be held on Tuesday next, the 9th inst., at

WINCHESTER HOUSE, LONDON, E.C.

The Meeting is called to protest against the Agreement by which the British Government intends to sink £2,200.000 in the Oilfields of Persia. The Chair will be taken at

THREE O'CLOCK by

Dr. PAUL DVORKOVITZ.

*All are invited to attend.*

DR. T. O. BOSWORTH,
D.Sc. (London), M.A. (Cambridge), F.G.S.
*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*
**Consulting Geologist.**
*(Formerly of His Majesty's Geological Survey.)*
Office: 12, St. Giles Street,
Northampton.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended May 30th was 113,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended May 31st was 280,585 poods, or about 4,526 tons. The total production for the year from January 14th to May 31st was 5,605,985 poods, or about 90,419 tons. The total production for the corresponding period last year was 5,837,325 poods, or about 94,147 tons. Price of crude oil at Baku is now 35¼ copecs per pood.

Maikop Victory Oil Company, Ltd. -- The production of crude oil for week ended May 30th was 23,248 poods, or 375 tons.

European Oilfields Corporation, Ltd. — The production for the week ended May 31st was 107,700 poods.

Baku Russian Petroleum Company, Ltd.—The production for the week ended May 23rd was 120,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended May 30th was 18,855 poods (304 tons).

Maikop New Producers, Ltd.—Production for week ended May 30th was 8,700 poods (140 tons).

British Maikop Oil Company, Ltd.- Production for week ended May 31st was 9,403 poods, or 152 tons.

Bibi-Eibat Oil Company, Ltd.—Production for week ended May 31st, 88,834 poods, or 1,433 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended May 30th, 96,457 poods, or 1,556 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended May 26th was 347,436 poods, or 5,604 tons. Corresponding period last year, 2,074 tons.

Maikop Midland.—Production at Krimskaya for week ended May 30th was 4,300 poods, or 69 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended May 30th was 16,116 poods (270 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended May 30th was 1,680 poods, or 27 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended May 26th, 174,600 poods, or 2,816 tons.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JUNE 1st, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. | Since May 25. | From Jan. 1. |
| Belgium .. | — | — | 12,160 | 317,600 | — | — | — | — | — | 32 22 | — | — | — | 1,350 | 12,160 | 351,170 |
| Canada .. | — | — | — | 4,400 | — | 47,300 | — | — | — | — | — | — | — | — | — | 51,700 |
| Dutch Indies | — | — | — | — | — | — | — | — | 1,135,700 | 22,824,960 | — | 83,400 | — | 1,748,910 | 1,135,700 | 24,657,270 |
| Germany .. | — | 29,250 | 23,440 | 1,198,900 | — | — | — | — | — | — | — | — | — | — | 23,440 | 1,228,150 |
| Holland .. | — | — | — | 3,610 | — | — | — | 182,000 | — | 3,364,280 | — | — | — | 11,210 | — | 3,561,100 |
| Mexico .. | — | 3,872,570 | — | 11,800 | — | — | — | — | — | 1,218,860 | — | 3,668,710 | 367,500 | 368,300 | 367,500 | 9,140,240 |
| Roumania .. | 1,271,080 | 7,659,900 | — | — | — | 961,440 | — | — | 829,400 | 2,655,250 | — | 2,361,470 | — | — | 2,100,480 | 13,638,050 |
| Russia . | — | 2,909,650 | 2,000 | 2,603,550 | — | — | — | — | — | 8,295,40 | — | — | — | 630 | 2,000 | 13,809,230 |
| U.S.A. .. | 2,050 | 44,902,070 | 545,540 | 21,072,000 | — | 91,270 | 3,970,750 | 32,805,010 | — | 5,490,500 | — | 5,603,330 | — | 248,890 | 4,518,340 | 110,204,660 |
| Other Countries | — | 3,770 | 240 | 140,410 | — | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 240 | 150,000 |
| | 1,273,130 | 59,377,210 | 583,380 | 25,352,270 | — | 1,100,010 | 3,970,750 | 32,988,470 | 1,965,100 | 43,881 680 | — | 11,721,060 | 367,500 | 2,379 290 | 8,159.860 | 176,791,580 |

# The British Government and the Petroleum Industry.

## A STUDY OF STUBBORN FACTS.

Closer study of the Blue Book issued in connection with the Admiralty agreement with the Anglo-Persian Oil Company, Ltd., emphasises the opinion which we expressed in our last issue of the thorough unsoundness of the proposition from a business point of view. To begin with, the capitalisation of the company will amount to no less than £4,700,000, a preposterous sum considering the development of the business so far obtained. Those who understand the vicissitudes of an oil business will realise how rash is the system of creating debentures on such a property, and will certainly further appreciate the absolute necessity of writing off very drastically all outlays in connection with field work, pipelines, tankage, and refinery in a field situated such as that of Persia is, where the whole of such items would become irretrievably lost if the oil in the one particular field upon which reliance is placed gives out.

We find, then, that the company have at the present moment issued £600,000 of debentures and £900,000 of six per cent. participating preference shares, both classes being entitled to payment of interest in priority to the shares which are being foisted upon the British taxpayer.

Let us go a little further. What are the British Government really purchasing for this enormous outlay? The concessions purport to be for a term of sixty years from the year 1901, so that thirteen years have expired, and the concessions, therefore, are not for sixty years, but for forty-seven years only. We have shown that before the Government shares can participate in profits, a full £100,000 of preference interest has to be paid. And then, of the gross profits realised by the company, if any are ever made, 16 per cent. goes as a royalty to the Persian Government, 12 per cent. from the first Exploitation Company and 3 per cent. from the second Exploitation Company go to the Persian shareholders, and a further 2 per cent. goes to the holders of the participating shares. So that what the British taxpayer is really purchasing is two-thirds only—that being the proportion of the ordinary capital which they will hold in the company—of about 70 per cent. of the remaining profits—if any!

Untenable on the grounds of an even probable ucrative investment, we have to search elsewhere for an explanation of the policy which has induced the British Government to cast in their lot with one particular group in producing and manufacturing products of petroleum, which must bring them into active market competition with other British companies who undeniably have done excellent service to the Empire in developing its resources, and we believe we are not wrong in saying that at least £200,000,000 sterling of British capital is embarked in oil enterprises.

Have the Government been informed that the producing of the oil is merely a first step in such an enterprise, and that if they wish to carry the matter to the logical conclusion, and to act, or assist in acting, as merchants for the distribution of their by-products other than liquid fuel, an enormous capital will be required, not confined to any one market, but almost necessarily compelling an expenditure over the world? Have they considered this question at all, and if so, we would ask, are they prepared to ask the British taxpayer again to provide these funds, absolutely necessary unless all the by-products arising entirely from the alleged necessity of producing liquid fuel are to be destroyed?

So we revert to the crucial question. What cause has impelled the Government to take a step which has created an impression of amazement and dismay amongst all those concerned in the vast trade of producing, refining, and selling petroleum, including the Scottish Oil Producers? For it is no light thing to have to face competition by the British Government.

We recall that for many years the Burmah Oil Company have received the protection and support of the British Government. At their instance, a free run was given to that company in the selection of oilfields in Burmah, and a very determined attempt was made to exclude all other companies from participating in the development of those fields. Twice an enormous and outrageous duty was imposed, paid, of course, by the consumers in India, for the sole purpose of giving protection to the fortunate shareholders of that company, and the following figures of the trade of petroleum in India and Assam for the year 1913 will show firstly what the subsidy of the Burmah Oil Company has amounted to, and secondly what has been the cost to the consumers:

The production of the Burmah Oil Company amounted to 12,821,000 units of kerosene, the percentage being 59·8 of the entire trade of India, whilst imported oils amounted to 8,608,000 units or 40·2. The duty imposed on oil imported into India amounts to 12 annas per unit. And from this it will be seen, therefore, that the Burmah Oil Company in 1913 received a subsidy on oil imported into India of £640,000, whilst the consumers had to pay this impost by way of the much higher price which has to be charged by competitors of the Burmah Oil Company in order to recoup themselves for the duty on 21,429,000 units.

Nor is this all. The trade in Burmah and Chittagong in 1913 amounted to 2,813,000 units of kerosene. We find that thanks to the enormous subsidy given to the Burmah Oil Company and to their geographical position in Burmah, they have annexed 2,689,000 units, out of a total of 2,813,000, or 95·6 per cent., and we have to add to the subsidy which we have already enumerated, therefore, a further sum of £134,000.

Now it is the Burmah Oil Company, who are also connected with the Persian Oilfields, and it is the Persian Oilfields that are to have the support of the British

Government. We suggest that it is upon the investigation of these combined circumstances that the true solution of the intervention of the Government will be found. This journal has never taken any part in politics, and it is of the utmost importance to bear in mind that this is no party question. The measures of protection which were given to the Burmah Oil Company both in the endeavour to exclude others from participating in the working of the fields and as the initiation of a protective duty, were started when Lord Curzon was Viceroy, and when a Unionist Government was in power. That the present Government have inherited this bad tradition and pushed it much further only shows that the sinister influences at work have thoroughly permeated the Admiralty, and anything else but an independent investigation and a very drastic alteration which will remove from the councils of the Admiralty any person or persons who are engaged as paid and professional advisers of companies with whom the Government have either direct or indirect relations is extremely dangerous and improper, and if, as we hope, an impartial discussion with removal of Party whips can be obtained in Parliament, a grave menace to the future prosperity of the British Empire and those engaged in developing its petroleum resources may be scotched or removed.

◆

## SIR MARCUS SAMUEL, BART., CRITICISES THE ANGLO-PERSIAN AGREEMENT.

Sir Marcus Samuel, Bart., the Chairman of the "Flower" Motor Ship Company, Ltd., made several important statements respecting the Government's agreement with the Anglo-Persian Oil Company when addressing the shareholders of the "Flower" Motor Ship Company last week at their first annual meeting.

Sir Marcus said :—

There is one question which will probably occur to most people, and that is connected with the supply of oil. Now, there is a great change over the position in the oil world. To-day, production has been developed at many points (I am glad to say within the British Empire) which a short time ago would have seemed almost incredible, and production of heavy oils has overtaken consumption.

It is a curious moment that the Admiralty have chosen to subsidise a company operating in a foreign country, and where their own advisers tell them that they are subject to very grave disturbances on the part of the natives, because it is disclosed this morning that the Persian concessions are not even in a British zone, but are on neutral ground. It is certainly an amazing feature to me that the Admiralty and their advisers should have selected an enterprise of that sort for their support, just at the very moment when supplies in British territory and under British jurisdiction are making rapid and most satisfactory progress.

A glance at the map will show how Egypt sits astride connecting the Eastern Hemisphere with the Mediterranean, and, seeing that a well has been struck there which gave an initial flow of 4,000 tons a day, the hopes of those working in the field run high that it will prove a large and good field.

And then we have Trinidad, in which great hopes are rightly entertained of that proving a field too.

Last, but not least, we have Sarawak (also under British jurisdiction), and I think I may say now a proved field.

So that, with this wide choice open to them, why have the Admiralty chosen to select a territory for their supplies which cannot offer the security that the fields that I have mentioned do ?

I have no doubt that this matter will be closely investigated in Parliament, and possibly some explanation of motives may be given for the support of one group and company of oil producers which we, who know this business so well, cannot at present fathom.

◆

**New French Enterprise.**—A group of French capitalists have acquired the field Florea Petresco at Glodeni, with 13 wells bored to the first petroliferous stratum, and giving a production of 40-50 tons a month. The price paid for the properties is 115,000 francs.

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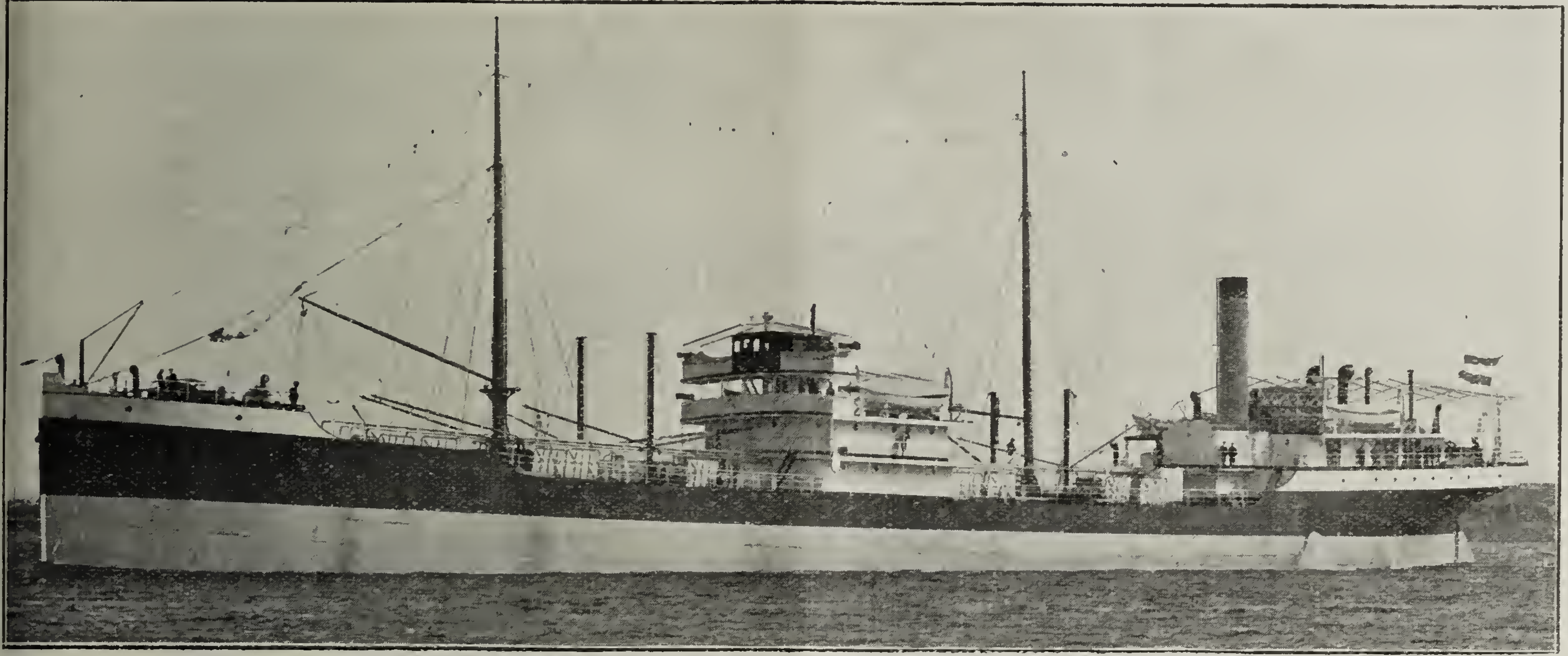
# THE NEW OIL DEPOT NEAR HULL.

## THE "ARTEMIS" DISCHARGES THE FIRST CARGO.

A FURTHER advance in Hull's great commercial interests was marked, during the Whitsuntide holidays, by the inauguration of the oil trade at Salt End, by the arrival and discharge of the oil tank motor-driven vessel "Artemis." The tanker was first to arrive at the new oil jetty, which, as developments arise, will eventually serve as the source of supply of oil and motor spirit for the Midland and Northern Counties of England. This huge enterprise of the North-Eastern Railway Company has been in progress for fully six years.



The "Artemis" alongside the New Depot.

As already mentioned in the REVIEW, the site covers 87 acres of isolated, uncultivated land, lying between he eastern end of the new Joint Dock and the riverside village of Paull. A stout timbered jetty projects rom the shore over the mud flats to the channel, a istance of 1,500 feet, and has a quay at the end where hips will discharge their cargoes of oil, which are umped from the end of the jetty through 8-in. pipes nto the storage tanks ashore. Five iron tanks have lready been completed, some of them holding 5,000 ons or 525,000 gallons of oil. Here will be stored fuel il, motor spirit, and lubricating oil, under conditions f safety so far as the surrounding property is oncerned.

The "Artemis" is an interesting vessel. She was et at the dock by a large number of dock and railway fficials, including Mr. George Shaw (of the North-astern Railway engineering staff), Mr. Newell ngineer in charge of the building of the jetty), aptain Blades (superintendent of the Joint Dock and f the Salt End jetty), Captain Scott (marine superintendent for the owners of the S.S. "Artemis"), Mr. A. E. Yates (engineer and superintendent of the building and installation for the Asiatic Petroleum Company), Mr. Law (representing Messrs. Moran & Co., who are acting for the owners), Mr. J. R. Porter (representing Messrs. Whittingham & Porter, who are the contractors for the engineering work), and Mr. Bowman (manager for the installation department of the Asiatic Petroleum Company).

The "Artemis" is a vessel with a capacity for carrying 5,500 tons, specially built for ice, and carrying a Dutch crew. She carried a cargo of motor spirit or benzine, and as soon as she was berthed flexible pipes were attached to her tanks, and the pumping was begun and continued through the night, the spirit passing through 1,600 feet of piping from the ship to the storage tanks ashore.

The depot is being linked with the whole of the Hull docks, and the oil will be distributed inland in oil-tank railway wagons, each holding twelve to fourteen tons. A line one mile and three-quarters long, linking the depot with the New Joint Dock, is approaching completion. The scheme comprises extensive warehouses, offices, workshops, repairing sheds, and sleeping places, with kitchens and cooking apparatus for seamen. Besides the Asiatic Petroleum Company the Anglo-American is also on the ground, and others will follow, importing from Russia, Roumania, and Mexico. The depot is within sight of the Admiralty oil storage tanks on the Lincolnshire side of the Humber.

## SUMMARISED BALANCE SHEET OF THE ANGLO-SAXON PETROLEUM COMPANY, LTD.,

### To December 31st, 1913.

| LIABILITIES. | £ | s. | d. |
|---|---|---|---|
| apital | 6,000,000 | 0 | 0 |
| epreciation, 1907–13 | 2,230,000 | 0 | 0 |
| undry Creditors | 2,948,470 | 11 | 5 |
| ension Fund | 40,000 | 0 | 0 |
| ividend, 1913 | 870,000 | 0 | 0 |
| Carried forward | 56,773 | 6 | 8 |
| | £12,145,243 | 18 | 1 |

| ASSETS. | £ | s. | d. |
|---|---|---|---|
| Properties as on January 1st, 1907, and since acquired | 9,576,574 | 7 | 0 |
| Office Furniture | 4 | 0 | 0 |
| Installations and Steamers under construction | 251,348 | 13 | 1 |
| Materials ashore and afloat | 75,940 | 19 | 7 |
| Oil Stock in London | 15,220 | 6 | 9 |
| Sundry Debtors | 1,786,046 | 13 | 0 |
| Cash in hand, at Bankers, and at short notice | 259,108 | 18 | 8 |
| Interim Dividend for 1913 | 181,000 | 0 | 0 |
| | £12,145,243 | 18 | 1 |

# THE OIL INDUSTRY IN AUSTRALIA.

## SOME INTERESTING FACTS.

(*From Our Australian Correspondent.*)

Melbourne, *April 30th*, 1914.

It is considered here that the issue raised by applications to the Interstate Commission for a bounty on oil is not one that can be lightly regarded at a time when new oilfields are being sought for with feverish anxiety all over the world to meet the enormous demands of the motor trade and naval and other shipping interests. The shale deposits of Wolgan Valley, N.S.W., are stated by Mr. J. E. Carne, Assistant Government Geological Surveyor of the State, to be the largest known in the world, leaving out of consideration the Scotch deposits. The shale fields operated at Murrundi by the British-Australian Oil Company are 970 acres in area, and the company also has fields at Capertree and Jenolan. Apart from New South Wales, shale exists in large quantities in Tasmania, and Mr. Carne states that the possibilities of discovering oil in wells have not been exhausted in Australia.

In the port of New Guinea, controlled by the Federal Government, prospecting for oil has given highly encouraging results, and Germany is turning her attention to New Guinea as one of the most likely places to replenish her oil supply. The practicability of treating shale successfully in competition with the output of oil wells has been proved in Scotland. By-products of an oilfield serve a great many commercial purposes, and the opening up of the deposits in the Commonwealth, whether it be effected solely by private enterprise or fostered by the Government, is a matter of the utmost importance.

The operations of the Commonwealth Oil Corporation since its inception may be instanced to show the difficulties commonly met with by the pioneers of a new industry. In 1906 the corporation commenced work at Newnes, in the Wolgan Valley of the Blue Mountains, in order to open up the shale deposits. For two years 1,500 men were employed in constructing a railway, 33 miles in length, over very difficult grades, to connect the site with the railway system. The capital cost of the line was £190,000, and in 1907, while it was in course of construction and works were being erected, the corporation purchased the mines and plant of the New South Wales Shale and Oil Company, established over twenty years previously at Torbane, Hartley Valley, and Sydney. As these mines were in active operation, the corporation was able to start trading on a small scale pending the instalment of a large plant at Newnes. This was completed in 1910, and consisted of a bench of 64 retorts, stills, refinery, sulphate of ammonia plant, wax-sweating plant, candle-making plant, and case and tin working plant. The corporation was able to place a first-class article before consumers, but the Australian labour conditions and wages made it difficult to show a profit. The local market was satisfied with imports from other countries, where the oil is drawn from wells which emit crude oil ready for refining. The Australian crude oil is, as is known, extracted by means of distillation, which gives from 30 to 50 per cent. of the weight of the shale in the form of crude oil. This in its turn yields petroleum products.

The proved shale held by the Corporation is estimated at 5,500,000 tons, and 10,000,000 tons more are assumed to exist on its property. At 6d. per gallon this represents oil worth £31,000,000. The plant, with all the latest appliances for producing refined oil at the rate of 30,000 gallons per day ; the construction of the railway and the purchase of the New South Wales Shale and Oil Company's works involved a capital outlay of over £809,000 ; the working expenditure up to the present time has been upwards of £500,000 ; and development and administration have cost over £450,000. In round numbers the Corporation has spent £1,800,000. It is willing to spend more capital in cheapening production if it receives Government assistance in the shape of a bounty on crude oil, or increased protection on refined oil. The advocates of Government aid state that every oil-producing country is convinced of the need of protecting it from the Standard Oil Trust, and that some countries which produce no petroleum frame tariffs to bring about the local refining of imported oil. Under the Commonwealth tariff, kerosene, crude petroleum, coal tar and wax are free, while there is a duty of ½d. per gallon on naphtha, benzoline, and gasoline. Very many trades are directly or indirectly concerned in oil production from the time the crude oil is mined until the finished product reaches the user. Oil is burnt largely on the vessels of the Australian navy, and in the event of war the importation of supplies would be a serious problem.

The following figures show the shale oil mined, the crude oil produced, and the refined products obtained in the period under review :—Shale won, 340,000 tons; shale retorted, 300,000 tons ; crude oil produced, 14,228,767 gallons ; ammoniacal liquor, 257,107 gallons; sulphate of ammonia, 21 tons ; motor spirit, etc., 681,583 gallons ; kerosene, 688,718 gallons ; residual oils, 9,188,036 gallons ; crude wax, 824,744 gallons; white wax, 1,700 tons ; sales of shale, 40,000 tons. In giving evidence before the Interstate Commission, Mr. D. Fell, official receiver for debenture holders in the Commonwealth Oil Corporation, said it was proposed to write down the capital by one half, and to raise £350,000, which would make the capital about £1,100,000. He asked for a bounty on a graduated scale, so that if further capital were obtained there would be reasonable assurance that it would be employed at a profit, and that local enterprise would not be destroyed by competition. Not a farthing had been paid in dividends ; but if in future operations a profit were made no bounty would be payable. While comment has been made from time to time on the amount of capital which this undertaking has absorbed, the point to be borne in mind is that there are at Newnes immense deposits of shale, from which large quantities of merchantable products have been manufactured. The development of these deposits would give employment to many Australian workmen, and keep for circulation in Australia a large amount of money now sent abroad, at the same time ensuring for defence purposes supplies of fuel which would otherwise be unobtainable in the hour of need.

# The United States Government and the Petroleum Industry.

## REFINERS' PROTEST AGAINST THE PIPELINE PROPOSITION.

The protest which has for some time been waged against the States Government in regard to the proposition that it shall lay down a pipeline and construct a refinery, has now taken definite shape, for as a result of several meetings of the members of the Western Petroleum Refiners Association, the secretary, Mr. C. F. Martin, has addressed the following letter to the Hon. Cato Sells, Commissioner of Indian affairs, and Lieut. James W. Richardson, of the United States Navy, these being the gentlemen who are at present studying the proposition on behalf of the United States Government.

The letter, which is well to the point and very explanatory, reads as under :—

Gentlemen,—As the secretary of the Western Petroleum Refiners Association and as the managing director of the Chelsea Refining Company, of Chelsea, Okla., I desire to respectfully represent to you as representatives of the Government :

First : That the Western Petroleum Refiners Association represents 27 refineries, located in the States of Kansas and Oklahoma, which are in active operation and which have been in operation, most of them, for at least four years.

Second : That not a single one of these refining plants is owned or controlled or operated through lease or by rental contract by the Standard Oil Company or any of its subsidiaries.

Third : That not a single one of these refining plants is owned, controlled or operated through lease or by rental contracts by any stockholder of the Standard Oil Company or any of its subsidiaries.

Fourth : That not a single stockholder in any of the plants represented in this organisation is a stockholder in the Standard Oil Company or any of its subsidiaries.

Fifth : We respectively represent that none of the oils produced in the State of Oklahoma are natural fuel oils, that they contain many volatile qualities which must be eliminated before the fuel value is obtained and that the only process by which the volatile qualities can be eliminated and satisfactory fuel value obtained is through refining, and that in order for the Government to obtain a fuel supply from the Oklahoma crude product it will be necessary for the Government to go into the refining business to a certain extent, certainly to the extent of removing the gasoline or benzine and the lighter grades of kerosene. We do not believe that this statement will be challenged by any person with a knowledge of the business.

Sixth : The independent refiners of the Mid-Continent fields have been engaged in the business for years and they speak from an intimate knowledge of the commercial and refining values of the various oils produced in that territory. They have had hard sledding most of the time, and are just now, through the extension of foreign and domestic markets due to unremitting effort on their part, seeing daylight. They are succeeding in spite of almost insuperable obstacles, and they do not believe it is the province of Government to further embarass them through competition, even though the competition is based on the technical, we might say the extremely technical, plea that such establishment is necessary for the "maintenance of the navy." It is our deliberate opinion that the navy can be maintained at the highest standard of efficiency without resort to the refining of oil either in Oklahoma or on the Gulf Coast.

Seventh : It is the belief of the refiners of Oklahoma that the Government can purchase all the fuel oil necessary for the use of the navy at the Gulf Coast at prices which cannot be duplicated in the Mid-Continent field, and without the necessity of the construction of a pipeline or the erection of a refinery at any place. We are familiar with the prices of fuel oil on the Gulf Coast; in fact, we had to compete with the refiners of oil from that district, even in our own territory, for fuel oil contracts.

Eighth : The oils of the Gulf Coast are natural fuel oils. They are heavier in gravity than Oklahoma oils, and do not possess the volatile qualities of the oils produced in this field. Likewise the oils produced in California are natural fuel oils, the gravity being much heavier than Oklahoma oils. In both the Gulf Coast and the California fields it is submitted that the navy can obtain an adequate fuel supply right at the seaboard at prices which are much lower than prices for fuel oil in Oklahoma, and the cost of transportation would be eliminated in all purchases made for the account of the navy in California or on the Gulf Coast. And we might add that the transportation charges on fuel oil has been one of the greatest drawbacks to the extension of markets for that product.

Ninth : We respectfully call your attention to the fact, even though there has been a state of revolution existing in Mexico, that the imports of Mexican oils have exceeded 2,000,000 barrels a month. We also call your attention to the fact that the price of Mexican oils is far below that of the oils produced in any field in the United States. We also call your attention to the fact that Mexican oils are of low gravity and can be used as fuel when they come to the top of the ground without the necessity of refining, and the full fuel value can be obtained without the use of any process whatever. We also call your attention to the fact, in case objection should be urged to the navy department purchasing foreign oils, that the development of the Mexican oilfields is largely due to American enterprise, and that millions of dollars of American money has been expended in this direction, and that adequate supplies of fuel can be purchased from American corporations operating in Mexico.

Tenth : In all of the hearings which have been had at Washington, this association has not been represented, preferring to wait its time till the representatives of the Government should come to the source of production, should investigate conditions right in the field, should be able to determine from all the evidence which may be taken the irreparable injury which will be worked upon the independent refining interest in case the Government should go into the refining business, and thus enter into competition with individual citizens and with individual interests in properties which have been years in the making and which are just now emerging from a period of depression which has required all of the courage and all of the energy of the people in control to keep them going and to stand by the ship.

Eleventh: If we believed, as refiners and producers of oil, that it would be to the interest of the Government and all of the people of this country for the Government to own and operate a refinery and a pipeline, we should not hesitate to say so. If we believed that a Government pipeline and refinery would pay expenses we should not hesitate to say so. But it is our deliberate opinion, considering all of the facts and circumstances and with an intimate personal knowledge of the situations, that the Government can ill afford to engage in a business which has proven disastrous to the private individual in the past and which promises no certain outlook for future profit. We believe that the Government should be chary in engaging in competition of any kind with an individual. We believe that the Government should take into consideration all of the facts and circumstances regarding the value of the oils and that it should not, under any circumstances, be governed in the final determination of the matter by the opinions of those who have no practical experience and are not capable of forming decisive opinions in this most important question.

(Signed) C. F. Martin, *Secretary.*

## UNIVERSITY OF BIRMINGHAM.

### DEPARTMENT OF MINING.

APPLICATIONS are invited for the post of Demonstrator in Mining and Lecturer in Mine Surveying, vacant by the appointment of Mr. Alexander Clubb, B.Sc., to an important post with the Anglo-Persian Oil Company. Stipend £150 per annum. The successful candidate will be required to devote his whole time to the duties of the office, and to work under and carry out the instructions of the Professor of Mining. He should possess a knowledge of drilling. Applications, stating age, training, and experience, accompanied by copies of three recent testimonials, should be forwarded to the undersigned not later than June 13th, 1914.

Further particulars may be obtained from—

**GEO. H. MORLEY, Secretary.**

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## AMERICAN PETROLEUM EXPORTS.

### Details for April.

According to the official publication of the Washington Bureau of Statistics, the exports of petroleum from America from the various ports during April were as under :—

| | Gallons. | Values. |
|---|---|---|
| Crude— | | |
| New York | 670,676 | $64,031 |
| New Orleans | 2,010,735 | 81,865 |
| Sabine | 2,202,299 | 66,068 |
| Arizona | 1,723,600 | 63,150 |
| Washington | 109,879 | 2,374 |
| Michigan | 817,654 | 29,970 |
| Ohio | 1,230,600 | 43,058 |
| Totals | 8,765,443 | 350.516 |
| Totals, April, 1913 | 19,532,606 | 705,712 |
| Illuminating— | | |
| Maryland | 6,460 | 694 |
| New York | 53,240,142 | 3,995,571 |
| Philadelphia | 14,910.945 | 1,136,724 |
| New Orleans | 9,837,568 | 520,910 |
| Sabine | 17,117,541 | 861,437 |
| Arizona | 43,780 | 9,232 |
| San Francisco | 11,323,868 | 516,601 |
| Southern California | 2,003 | 367 |
| Washington | 3,843 | 624 |
| Buffalo | 10,000 | 4,277 |
| Dakota | 182,228 | 9,366 |
| Michigan | 39,694 | 2,322 |
| Ohio | 154 | 18 |
| Totals | 106,719,026 | 7,058,143 |
| Totals, April, 1913 | 79,601,509 | 5,541,896 |
| Lubricating and Paraffin— | | |
| Maryland | 984,559 | 145,443 |
| New York | 13,652,588 | 1,618,511 |
| Philadelphia | 2,820,468 | 344,959 |
| Galveston | 39,659 | 6,837 |
| New Orleans | 278,894 | 93,302 |
| Sabine | 30,749 | 6,155 |
| Arizona | 2,834 | 1,145 |
| San Francisco | 261,101 | 35,788 |
| Southern California | 510 | 156 |
| Washington | 8,110 | 2,096 |
| Buffalo | 290,037 | 38,284 |
| Dakota | 106,173 | 13,829 |
| Michigan | 90,667 | 13,728 |
| Ohio | 11,137 | 2,309 |
| Totals | 18,577,486 | 2,322,542 |
| Totals, April, 1913 | 18,313,574 | 2,719,606 |
| Naphthas, Gasoline, etc.— | | |
| Maryland | 2,091 | 282 |
| New York | 13,038,396 | 1,925,177 |
| Philadelphia | 4,321,905 | 570,011 |
| Galveston | 12,375 | 1,732 |
| New Orleans | 3,317,733 | 384,556 |
| Sabine | 323,954 | 53,610 |
| Arizona | 6,541 | 1,719 |
| San Francisco | 230,827 | 42,258 |
| Southern California | 21,899 | 2,991 |
| Washington | 146,524 | 29,872 |
| Buffalo | 394,718 | 47,611 |
| Dakota | 362,803 | 42,876 |
| Michigan | 244,215 | 27,391 |
| Totals | 22,423,981 | 3,130,086 |
| Totals, April, 1913 | 21,750,906 | 3,232,782 |
| Residuum, Gas Oil and Fuel Oil, etc.— | | |
| New York | 7,745,338 | 318,631 |
| New Orleans | 4,792,797 | 164,226 |
| Sabine | 13,542,047 | 430,477 |
| Arizona | 6,528 | 300 |
| San Francisco | 36,522,758 | 710,283 |
| Southern California | 59,925 | 1,132 |
| Washington | 42,255 | 2,407 |
| Buffalo | 309,859 | 12,732 |
| Dakota | 149,014 | 5,541 |
| Michigan | 318.287 | 13,450 |
| Ohio | 3,025 | 391 |
| Totals | 63,491,833 | 1,659,570 |
| Totals, April, 1913 | 28,940,418 | 657,380 |

# GASOLINE FROM NATURAL GAS.

By Messrs. GEORGE A. BURRELL and FRANK M. SEIBERT.

In this paper are presented some results of the investigation of natural gases by the Washington Bureau of Mines. Details of the experiments will be given later in publications of the Bureau. They are only outlined here, and presented more fully at the annual meeting of the Natural Gas Association of America, St. Louis, Mo., with the permission of the Director of the Bureau of Mines.

Experiments were made that resulted in the separation of natural-gas mixtures into the individual hydrocarbons present. This had never been accomplished heretofore. Natural gases may contain only methane as the combustible constituent, or may be mixtures that contain large quantities of the higher gaseous paraffines. In addition, there may be vapours of the liquid hydrocarbons present, sometimes enough to warrant the installation of a plant for the extraction of gasoline.

It is generally known that ordinary combustion gas analyses give but little indication regarding the individual hydrocarbons present in a natural-gas mixture. Only the two predominating paraffines are shown. In making a separation to show these individual paraffines, the authors first liquefied natural gas by means of liquid air and then separated the different hydrocarbons by properly adjusting temperatures and removing the various fractions with a mercury pump. The fractions were then analysed. Such a separation is possible because in the liquid condition the boiling points of the gaseous paraffines are rather widely separated.

It is certainly not an unwarranted stretch of one's imagination to state that separations of the natural hydrocarbons have occurred in the earth. Starting from a place of origin common to both oil and gas, there could have occurred during the ages that have elapsed since the deposition of the materials from which these hydrocarbons were produced, repeated separations of the more easily liquified and lighter constituents until there might finally result in rare cases a deposit consisting of methane only as the paraffine hydrocarbon.

The production of gasoline from natural gas increased from a few thousand gallons in 1904 to almost thirty million gallons in 1913. The industry had its commercial inception in Pennsylvania, around Tideoute, Titusville and Warren. It was not until the year 1909 that the industry assumed commercial importance. According to the United States Geological Survey, the increase in production of gasoline for the year 1912 over 1911 was 63 per cent. The authors estimate that the rate of increase for the year 1913 over 1912 was probably 143 per cent. At the present time there is a lull in the production. The gas used represents that which, previous to the installation of plants for the production of gasoline, was largely wasted.

The paraffine hydrocarbons that principally concern the natural-gas gasoline operator are methane, ethane, propane, and the butanes, pentanes, hexanes and heptanes. The first four are gases at ordinary temperatures. The last three are liquids. The gases after contact with the oil in the earth bring with them from the latter the vapours of the liquid hydrocarbons. These vapours are carried along with the permanent gases in the same manner that water exists with air. After treatment in the natural-gas gasoline plant, where the capacity of the gases to carry the vapours is much lessened, these vapours are deposited. The quantity of gasoline vapours in any particular gas mixture is dependent upon the character of the oil in the sand, temperature and pressure conditions in the sand, porosity or closeness of the strata, intimateness of contact between gas and oil and other less important factors.

The pentanes, heptanes and hexanes are the only constituents of crude oil, that at earth temperature have vapour pressures of such magnitude that they are distilled in quantity from the crude oil, hence, they are the chief liquid constituents of natural-gas gasoline.

In the case of those wells from which gas is drawn under reduced pressure for gasoline condensation, the three gases, methane, ethane and propane, invariably occur in the earth in the gaseous condition and butane usually.

By itself the ordinary combustion analysis is of little use for testing natural gases in order to determine the suitability of the gas for gasoline condensation. Laboratory methods in present use have to do with solubility and specific gravity tests. The Bureau of Mines has used ethyl alcohol and claroline oil. One hundred c.c. of the gas are shaken with 35 c.c. of the oil, or with 50 c.c. of absolute alcohol, until absorption ceases. For the determination of the specific gravity, the gas has been weighed and also tested by Bunsen's effusion method. It was found that gasoline is at present condensed in commercial quantities from natural gases that have a specific gravity of ·80 or higher (air equals one) and that are soluble to the extent of 30 or more per cent. of their volume in the solvents used. The best way to use the laboratory tests is as a method of testing, preliminary to testing the gas at the well by means of an experimental testing plant.

The pitot tube as ordinarily used for measuring the flow of gases, i.e., where the static pressure is not obtained, may give results that are 8 per cent. in error even where the tube is correctly used. When the static pressure is also obtained and all readings are taken with a sufficient degree of refinement, they may only vary 1 per cent. from the correct results. Wells should be allowed to vent at least twenty-four hours before measurements of the flow are made.

A simple gas analysis determination will show an operator whether or not air is leaking into his lines. Some gases that are used for condensing gasoline contain 40 or more per cent. of air, due to leakage.

Regarding the life of wells as to flow of gas for gasoline condensation, it can be stated that wells from which gas has escaped freely for several years will be long enough lived to insure a return of the initial investment with profit, i.e., if the gas contains in the first place the necessary quantity of gasoline vapours.

The process of the condensation of gasoline from natural gas is a physical one. The process in principal use at the present time consists essentially in compressing the gas up to 300 pounds per square inch and cooling it with water of ordinary temperature. Cooling the gas by means of a refrigerant (ammonia) at low pressures is a process that is sucessfully used in at least two plants.

The pressure best suited for the condensation of gasoline from natural gas depends upon the partial pressures of the gases and vapours present in the mixture. These partial pressures are difficult to determine; hence the best one can do in plant operation is to experiment until the most suitable pressures are found.

Single and two-stage compressors are generally used in gasoline-plant operations. Single-stage compressors are generally used where pressures up to 110 lbs. per square inch are not exceeded. In two-stage plant operation usually but little condensate is obtained after the first compression.

Several changes occur in the gas when it is treated in a natural gasoline plant for the condensation of gasoline. One has to do with the condensation of vapour, another with the liquefaction of gas, and a third with the solubility of gases in the liquids produced.

The condensate as it is received in the accumulator tanks consists principally of the liquids pentane, hexane, and the liquefied gas butane. Some heptane and liquid propane may also be present.

For a particular natural gas there is a certain pressure which will be found-suited to produce the most saleable gasoline. Increasing the pressure may result in producing more condensate in the acccumulator tanks, but the additional yield may be so volatile as to quickly escape after exposure to the air. The quantity of gas that dissolves in the condensate in the accumulator tank is so small as to be insignificant.

Exclusive of foundations and housing for machinery, pipelines to wells, railroad sidings, storage tanks, etc., compression and condensing equipment for natural-gas gasoline plants costs about $2,800 for handling 120,000 cubic ft. of gas, and up to $7,850 for handling 600,000 to 700,000 cubic feet. Two plants that produced 490,000 gallons of gasoline in 1913 cost $40,000 to completely install. The owners realised 53 per cent. on their investment last year.

About 35 cubic feet of gas disappears at some plants for each gallon of condensate produced from 1,000 cubic feet of gas.

The heating values of natural gas used for the condensation of gasoline from natural gas may be as high as 2,500 B. t. u. per cubic foot 0°C and 760 mm. pressure. (Cross heating value.) None of the residual gases that the authors tested had a heating value lower than 1,000 B. t. u.; at one plant the residual gas had a heating value of almost 2,300 B. t. u.

The explosive limits of natural gases used for the condensation of gasoline from natural gas are very low and very narrow. These limits in some cases are approximately 3·5 per cent. gas, low limits, and 8 per cent. gas, high limit. Special precautions must be taken to avoid explosions. Some plants have been completely wrecked.

Evaporation losses that resulted when the authors exposed natural-gas condensates of different specific gravities to the atmosphere ranged at one plant from 4·5 per cent. to 24 per cent. at the end of the first hour; from 8·5 to 33 per cent. at the end of the second hour; from 9·5 to 40 per cent. at the end of the third hour; and about 54 per cent. at the end of the eighteenth and twenty-fourth hours.

A slower rate of evaporation occurs from a mixture of refinery naphtha and a condensate than when the condensate is allowed to evaporate separately. In the case of some tests conducted by the Bureau, the saving at the end of the first hour was about 6 per cent. in favour of the blends, at the end of the second hour about 10 per cent., at the end of the third hour about 11 per cent., at the end of the fifth hour about 12 per cent., at the end of the sixth hour about 11 per cent., at the end of the seventh hour about 8 per cent., and at the end of the twenty-fourth hour about 14 per cent.

Freshly drawn condensates of 93° Be. specific gravity may have a vapour pressure from 14 to 48 lbs. per square inch at temperatures from 55° F. to 100° F. (13° C. to 38° C.). Condensates of 78° Be. specific gravity may have vapour pressures ranging from 3 to 19 lbs. per square inch at temperatures from 55° F. to 109° F. (13° C. to 43° C.).

After a condensate of 93° Be. specific gravity has lost 10 per cent. of its volume by evaporation the vapour pressures may range from 1 lb. to 19 lbs. per square inch at temperatures ranging from 55° F. to 109° F. (13° C. to 43° C.).

When freshly drawn condensates of 93° Be. specific gravity are mixed with refinery naphthas of 60° Be. specific gravity, the vapour pressures may be 57 to 70 per cent. of the vapour pressure of the condensate alone.

Condensates of the same specific gravity may have different vapour pressures.

Casing-head gases are largely used on oil leases for driving pumps and lighting and heating buildings. In some cases they are turned into mains and sent to cities. Their most important use is for gasoline extraction. When the supply on the lease exceeds the local demands or is unsuited for gasoline extraction it is wasted. Far more is wasted at the present time than is used. Many miles of pipelines would have to be installed to gather it all and transport it for city and factory use even if the market was available. In many cases the expense would be unwarranted. However, some small towns are largely heated and lighted with casing-head gas.

It has been suggested that natural gases be sold on a heat-unit basis. In the case of Pittsburgh gas nothing would have been gained from such procedure during the four years mentioned, because the gas has not fluctuated in composition enough to warrant it. Presumably this applies to other places that derive their gas supply from the same source. A complete series of analyses would have to be obtained from many localities in order to determine whether such a procedure would be warranted in other places.

It is believed, however, that natural gas companies themselves would derive benefit by making analyses of the gases from different wells on their properties. Some high nitrogen gases have been found in Kansas, for instance. It might be that an occasional well would be found producing a gas of abnormally low heating value—probably not enough to appreciably affect the average output of the field, but of enough importance for the gas company to know it. The Bureau of Mines is making such a survey of several fields.

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## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 12/3-13/3 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/3-24/3 |
| 5% Debentures ... ... | 600.000 | £100 | 99-104 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{11}{16}$-$\frac{13}{16}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/0-4/6 |
| Bibi-Eibat Oil Co. ... ... | 250.000 | 10/- | 4/9-5/9 |
| European Oilfields ... ... | 319.181 | 10/- | 5/9-6/3 |
| Lobitos Oilfields, Ltd. .. | 400.000 | £1 | 29/0-30/0 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 36/9-37/9 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{7}{8}$-1 |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 26/6-27/6 |
| Russian Petroleum Co. ... | 999.373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{16}$-$1\frac{3}{16}$ |
| " " Ord... | 690,000 | fully pd. | 10/6-11/6 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{1}{16}$-$5\frac{1}{8}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 17/6-18/0 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 615 | 617 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2.750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 226 | 228 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,200 | 18,300 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 900 | 905 |
| Russian Naphtha Society ... .. | 100 | 169 | 171 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 172 | 173 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co ... ... ... | — | 395 | 400 |

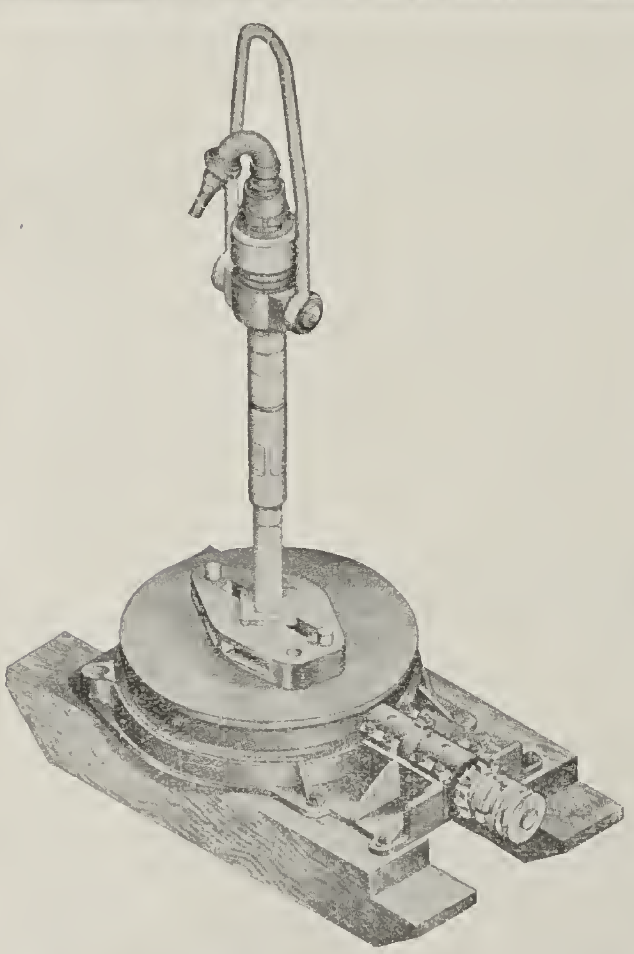
## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 23/3 |
| " 6% Cum. Pref. | 100,000 | £10 | £11$\frac{1}{8}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 92/0 |
| " Pref. ... ... ... | 250,000 | £1 | 27/10$\frac{1}{2}$ |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/9 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 38/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 28/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 22/10$\frac{1}{2}$ |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 3/9 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 80/6 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 14/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 43/6 |
| " "B" Deb. ... | 160,000 | £100 | £140 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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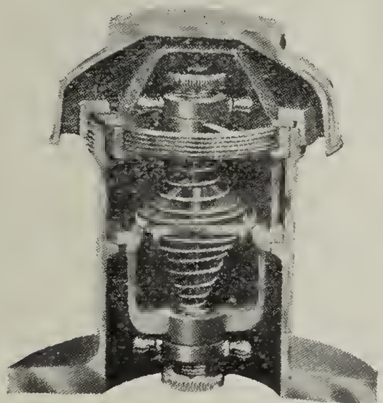

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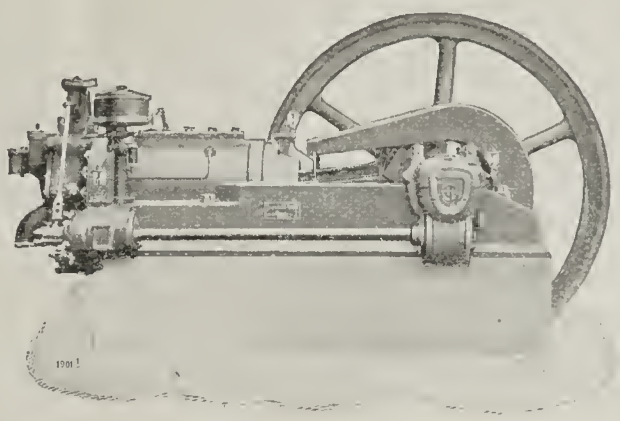

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— THE —
**PETROLEUM REVIEW,**
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

SATURDAY, JUNE 6, 1914.

## THE SUCCESS OF THE "SHELL."

IT must be a very proud day for the founder of the "Shell" Transport and Trading Company, Ltd.—Sir Marcus Samuel, Bart.—when, on the occasion of the seventeenth annual meeting of the company, he meets his shareholders on the 22nd inst. It is now about twenty years ago since Sir Marcus first took an interest in the development of the Borneo oilfields, and it is seventeen years ago since the "Shell" Company came into existence, then as a private company with an authorised capital of £2,000,000 in ordinary shares.

But since that time, history in the petroleum industry has been quickly made; the march of progress has continued in a remarkable manner, and that progress has been reflected in a most marked degree in the "Shell" Company, which with its £10,000,000 capital now ranks as one of the most important international petroleum organisations in the world. Its amalgamation with the Royal Dutch Company in 1907 marked a period of its expansion which will ever go down to posterity as a brilliant achievement following unparalleled progress, and those who at the time were somewhat opposed to the amalgamation, have already learned how beneficial the rapprochement has been to both interests.

Sometimes we hear the suggestion that to-day the "Shell" is a foreign company since it became associated with the Royal Dutch Company, but we cannot think that those who argue in this manner study the facts of the case for themselves. The fact that so many of the English shareholders of the "Shell" also have large holdings in the Royal Dutch, combined with the knowledge that some months ago the Royal Dutch Company placed a considerable number of its shares on the London Stock Exchange, must cause one to look upon both companies as being more British than anything else. Critics evidently overlook the fact that the majority of the units of the gigantic fleet of the combined companies—which forms one of the chief assets—were built by British firms, for was it not Sir Marcus Samuel who nearly twenty years ago hit upon the idea of building oil-tankers of a far larger size than ever before attempted?

There is no doubt the introduction of oil fuel in this country has been due to the persistent energy with which Sir Marcus Samuel has advocated its adoption. Having convinced the Admiralty of the economies and the advantages which would follow its application, he went further by organising the Flower Motor Ship Company, whose capital of £1,000,000 was privately subscribed. This company, as readers may be aware, is to-day proving the advantages of utilising liquid fuel in the general cargo-carrying ocean service, and the launch of the company's second vessel yesterday (Friday) is eloquent testimony of the rapid strides which the new concern is making. The fact that the first ship, the "Arum," has demonstrated her capabilities of steaming for twenty-four hours on just over three and a-half tons of oil fuel, is bound to give a marked impetus to the consumption of oil fuel on ocean craft. But this is somewhat by the way.

Elsewhere in the present issue of the Review we publish the balance-sheet of the "Shell" Company, which is so self-explanatory as to need little comment here. The past year's operations have obviously been the best in a long series of successful years of the company, for even upon an increased capital the directors are able to recommend an increased dividend, the total for the year being 35 per cent., as against 30 per cent. for 1912. Even with the payment of this great dividend, there still remains a balance of £326,000 to be carried forward, or a sum of over £60,000 more than a year ago. And if one compares the balance-sheets for the past two years, this same gratifying state of affairs is shown. The Bataafsche Petroleum Maat., has liberally increased its insurance fund, which is now equal to £760,000, while in the case of this and the Anglo-Saxon Petroleum Company, since the inception of these concerns seven years ago, over five and a-half millions sterling has been written off for depreciation.

As we have already said, Sir Marcus Samuel may justly feel proud of the unprecedented success which the "Shell" and its allied concerns has made and is still making.

Having disposed of the main items in the balance-sheet, it is of interest to note the remarkable headway which the company is making in various parts of the world in regard to the output of crude oil. The "Shell" is no longer associated only with the Far East, but through its several subsidiaries and its holdings in other companies, is to-day an immensely important factor in nearly all the oilfields of the world.

Its wide ramifications in the Russian Empire are seen from the fact that it is largely interested in no less than seven influential enterprises, the chief producing concern being "Bnito," which last year produced approximately 550,000 tons of crude oil. Next in importance is the "Nouvelle Société du Standard Russe de Grosny," with an output last year of 172,000 tons. Then comes the Ural Caspian Oil Corporation, with an annual production during 1913 of 91,000 tons, of which 60,000 tons were shipped; the North Caucasian Oilfields, Ltd., with an annual yield of 150,000 tons (as against 40,000 tons during the preceding year); the New Schibaieff Petroleum Company, Ltd., with an output of 90,000 tons last year, and the Grosny-Sundja Oilfields, Ltd., which at the present moment is producing more than 1,000 tons of crude oil weekly, while lastly there is the important Mazout Company, which during the past twelve months disposed of 1,270,000 tons of petroleum products mainly in the interior of Russia.

Turning to Egypt, the interests of the "Shell" Company in that new field had an output during 1913 of over 12,000 tons, but as our readers are aware, since the commencement of the present year, the weekly production of the Gemsah field has increased from 600 tons to 8,000 tons, though owing to the insufficiency of storage the wells cannot flow to their full capacity.

In America the "Shell" Company's operations are assuming great magnitude. In the Californian fields, through its acquisition of the Californian Oilfields, Ltd., it had a production during 1913 of considerably over 700,000 tons. In North America its subsidiary concern (the Roxana Company) last year produced over 160,000 tons, whilst this company's daily production at the moment is about 300 tons; and in the Mexican fields, where since the end of last year the "Shell" Company has materially increased its former holdings of 20,000 acres by the acquisition of large tracts north of Tampico, the crude oil output can, when facilities permit, be increased to an estimated yield of 100,000 barrels per day. The company's storages in the field, amounting to nearly 2,000,000 barrels, are to-day filled with oil, and, therefore, the production is being controlled to suit shipments.

The "Shell" Company's interests in the Roumanian fields are represented by the Astra-Romana, which last year produced nearly 500,000 tons of crude oil, while in Sarawak the company's output last year amounted to 26,000 tons, but has since considerably increased.

From its fields in Netherlands-India (in which are included North Sumatra, South Sumatra, Borneo, and Java), the total crude oil output last year reached 1,503,661 tons—a considerable advance upon the figures of output for the previous twelve months.

But the "Shell" directors do not intend that the company shall rest upon the success already achieved. Further and important developments are proceeding, for the Company has acquired new oil territories in Ceram, Mandoel, and British Sebatik, from which there are hopes of particularly good results, while it is participating to a considerable extent in the development of the oilfields of Trinidad. Of a truth, the "Shell" Company stands out as a remarkable example of what grit and energy can do, and that without Government assistance.

# AMERICAN AND ROUMANIAN NOTES.

## AMERICAN.

**The Western Petroleum Company.**—This company has been authorised, with a capital stock of two and a-half million dollars, to operate in the Big Horn Basin district of Wyoming. Extensive development work will commence immediately.

**A New Use for Oil.**—Over 1,000,000 gallons of oil have been sold to the residents of Charleston, S.C., to be used on the waters and swamps of a neighbouring island in order to free it of mosquitoes there during the encampment of a regiment for holidays.

**Shooting Texas Wells.**—The old time idea of shooting wells in order to stimulate production is now making considerable headway in the Texas fields, where several poor wells have been made to give very favourable production with the judicious use of nitroglycerine.

**Californian Oil Dividends.**—During April nearly one and a-quarter million dollars were paid out by companies operating in the Californian fields as dividends. This sum, however, only represents the disbursements made by the largest companies, and therefore cannot be taken as representing the total dividends paid for the month.

**Another Important New Californian Company.** — The Consolidated Mutual Oil Company is the title of the latest oil enterprise in the Californian fields. It has a capital of three million dollars and is to take over the properties of the Mays Consolidated Oil Company in the Midway field. The offices of the new company are to be at 544, Market Street, San Francisco.

**The Texas Panhandle Field.**—Although this field is but four years old, it possesses 1,715 producing wells and 48 non-producers. The output of the field is estimated at over 30,000 barrels daily. The fields which the district embraces are those of Electra, Petrolia, Burkburnelt, Corsicana, Iowa Park, and Moran, but over two-thirds of the entire production comes from the Electra field.

**The De Soto District.**—The producing locality in the De Soto parish (near the Gulf Coast) is at the moment attracting little attention, operators preferring to test the undeveloped territory. A definite pool has been established round the Morgan well in Sabine and another in Red River parish, some six or eight miles north-east of the Naborton pool, and tests are now to be made in the intervening territory.

**Cheap Motor Spirit in Texas.**—Following upon the heels of the several recent reductions in the price of crude oils, the large refiners in Texas are stated to have reduced prices to a point which is said to be below cost. At the present time the retail price for asoline (motor spirit) in Texas centres is ten cents per gallon, fter making allowance for the profits of the dealers. In Los Angeles and San Francisco, the price for gasoline is fifteen cents per gallon.

**Another Lake View Gusher.**—The Lake View No. 2 Oil ompany, which has recently been operating in the Maricopa istrict of California, and which has been re-drilling well No. 1, truck the gusher sand a fortnight ago, the well coming in with a low of oil estimated at from 15,000 to 20,000 barrels daily. A niniature army of workmen are constructing enormous reservoirs, et in spite of these and other facilities for storage, much of the il is being lost.

**Casper a Refining Centre.**—It is now assured that Casper vill be the refining centre for the oil industry of Wyoming. The ourth refinery for the city is now certain, as the Keystone Refining ompany has secured the right of way for its pipeline from the alt Creek field over Government land to its refinery site north-east f Casper. The projected new refinery will have a capacity of ,000 barrels daily. The other companies with refineries in or about o be erected in Casper are the Standard Company of Indiana, the idwest and the Franco.

## SITUATION WANTED.

ENGINEER (31), B.Sc. (Eng., London), A.M.I C.E., mechanical training, desires RESPONSIBLE POSITION on oilfield. dvertiser has had eight years' varied civil engineering experience, nd for one and a half years was manager of one of the operating il companies in Trinidad. Exceptional references.—Apply in first ase to "ENGINEER," care of REVIEW Offices, 45, St. Mary Axe, E.C.

## ROUMANIAN.

**Kerosene for Inner Consumption.**—The quantity of kerosene destined for inner consumption for the year 1914-1915 is 57,437 tons.

**Exportation.**—The export trade is very active. Prices of kerosene are satisfactory, while the prices of residuals are slightly reduced, and those of benzine are fluctuating.

**New Roumanian Group.**—Under the name of "Chantier Glodeni," a Roumanian group has been formed with a capital of 400,000 francs for the purpose of exploiting some concessions in the Glodeni field.

**The Steaua-Romana at Rotari-Ceptura.** There are most favourable reports on the exploration work which the Steaua-Romana is carrying out at Rotari-Ceptura, and good results are expected shortly.

**Victoria.** –This company has elected as representatives of the administration in Roumania, Mr. Charles Neuburger and Mr. Joseph Wagner; Mr. Gabriel Héguy as director of Roumania, with power of attorney.

**The Parsani Oil Estate Syndicate, Ltd.**—This company has now been authorised to operate in Roumania, and has its administration at Bucarest. The representative of this company in Roumania is Dr. S. Aisinman.

**Credit Petrolifer.**—The profits of this company for the past year amount to 919,847 francs, out of which a dividend of 15 per cent. is distributed to the shareholders and 89,817 francs transferred to the reserve fund and 22,027 francs to the next account.

**Steaua-Romana.**—The production of this company during the past week averaged 1,000 tons a day. The financial result of the year 1913-1914, closed on April 30th last, is quite satisfactory, and a dividend of 10 per cent will be distributed to the shareholders.

**Petrolul.**—Well No. 8 of this company at Calinet-Telega has met with a petroleum stratum at a depth of 86 metres. The well at present produces about three tons a day. The new stratum has hitherto been quite unknown in the district. The oil obtained is very pure.

**The Vega.**—A general meeting of the shareholders of this company took place on May 13th at Bucarest. The profits declared for 1913 amount to 1,414,812 francs, out of which a dividend of 20 per cent. has been paid to the shareholders, and a sum of 82,656 francs is transferred to the reserve fund.

**Well No. 16 S. at Moreni.**—This well of the Astra-Romana continues to produce 150 tons a day by eruptions. At Bana the production of the company is maintained at 200 tons a day. Well No. 6 at Filipeshti de Padure has now been cleaned and has given powerful eruptions of crude oil and gas.

**Bayerischer Lloyd in Roumania.** A representative of the Bayerischer Lloyd is now in Roumania in order to study the question of the development of the transport of petroleum on the Danube in order that the Roumanian petroleum products should be brought more easily on the German market.

**Activity on the Fields.**—The activity on the various fields is now very great, principally at Moreni-Stavropoleos, Tzuicani, Bana, and on the north-west extension near the Consolidated Company's well No. 30. Great activity is also displayed to the north, south, and south-east of Bustenari—viz., at Puturosu, Gropi-Chiciura-Tzonteshti, and at Bordeni-Runcu.

**Astra-Romana.** — The average production of this company during the past week amounted to 1,185 tons a day, of which 931 tons were obtained at Stavropoleos, 172 tons at Bana, and 48 tons at Campina. Well No. 37 A.R. at Tzuicani, which was struck in October last and has been for a very long time in cleaning, is now giving by regular eruptions from 500 to 600 tons a day.

**Activity of the Petrolul Company.**—The productive well of this company at Campina continues to yield about 15 tons a day Well No. 4 has been commenced near the old well No. 1, which still yields 10 tons a day. At Gropi boring is continued, and the well has reached now a depth of 230 metres. At Bana-Moreni the well, which is now at a depth of 423 metres, is being deepened in order to reach the stratum of oil, which lies at about 700 to 800 metres.

## TRIAL TRIP OF THE "ARAGAZ."

The steel screw petroleum steamer "Aragaz," built by Sir W. G. Armstrong, Whitworth & Co., Ltd., at their Walker Shipyard, for the "Aragaz" Tank Steamship Co., Ltd., of London, was taken to sea on Monday, May 25th, for trial trip, and gave every satisfaction. A mean speed of 11½ knots was attained. Amongst those present at the trial were Mr. Felix Gilbert, one of the directors of the Aragaz Tank Steamship Co., Ltd., Mr. Turpin, a director of Messrs. F. J. Trewent & Proctor, Ltd., under whose supervision the vessel has been built; Lieut. Proctor, R.N. The engine builders were represented by Mr. Summers Hunter and Mr. Daglish; and the shipbuilders by Col. B Saxton White and Mr. A. Gulston. The following are a few of the chief characteristics of the vessel:—Length overall 400 ft.; breadth extreme, 50 ft. 3 in.; depth moulded, 30 ft. 3 in. The deadweight is 7,200 tons on a moderate draught of water. She has a long poop extending from the stern to the forward end of the boiler room, in which the engineers' accommodation is placed; a short bridge amidships, with accommodation for the captain and officers, and topgallant forecastle for the crew. The chart room, wheel house, and Marconi room are placed on the bridge deck with a flying bridge above. The liquid cargo will be carried in eight double tanks. The space between the forward cofferdam and fore peak will be arranged as a cargo hold. The vessel is built to Lloyd's 100 A1. class under special survey. The machinery is of the triple-expansion type, manufactured by the North Eastern Marine Engineering Company, Ltd., Wallsend-on-Tyne, and has cylinders 25½ in., 42 in., 70 in. by 48 in stroke, steam being supplied by two steel boilers working at 180 lbs. pressure under Howden's system of forced draught. After the trial the vessel returned to the Tyne for bunkers prior to sailing under the command of Captain Reid.

◆

**Publicity.**—All enterprising firms advertise in the Review. Shall we quote you Rates? Send a postcard to—Advertisement Manager, Review Offices, 45, St. Mary Axe, London, E.C.

## A LONDON COMPANY ACQUIRES NATURAL GAS RIGHTS IN ROUMANIA.

The concession granted by the community of Ploeshti to Mr. M. J. Koppes, for utilising the natural gas from Ploeshti wells, has been transferred by the owner of the concession to a new enterprise formed in London under the name of "The Ploeshti Natural Gas Supply, Ltd." This latter company will manage the capturing of gas obtained in the different petroliferous districts of Roumania, and the transport by means of pipelines to Ploeshti, where the gas will be used as motor power in factories and also for domestic purposes.

◆

## SWEDEN'S IMPORTS OF PETROLEUM PRODUCTS.

The imports of petroleum products into Sweden during January amounted to 8,731 tons. The imports of the various products were as follows:—

| | Tons. |
|---|---|
| Kerosene ... ... ... ... ... | 5,861 |
| Paraffin ... ... ... ... ... | 251 |
| Other products ... ... ... ... | 2,619 |
| Total ... ... ... ... ... | 8,731 |

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO ITALY.

The imports of petroleum products into Italy during February amounted to 25,539 tons, as against 19,557 tons imported during February, 1913. The imports of the various products were as follows:—

| From | Kerosene. Tons. | Benzine. Tons. | Lubricating oil. Tons. | Other products. Tons. |
|---|---|---|---|---|
| Austria ... ... | 85 | 103 | 597 | 1,202 |
| Russia ... ... | 53 | — | 969 | — |
| Roumania ... ... | 3,145 | 995 | — | 3,227 |
| United States ... | 8,119 | 1,084 | 3,135 | 664 |
| Other countries ... | — | 44 | 1,854 | 713 |
| Total ... ... | 11,402 | 2,226 | 6,555 | 5,806 |
| Total for Feb., 1913 | 11,477 | 573 | 3,125 | 4,382 |

## SUMMARISED BALANCE SHEET OF THE BATAAFSCHE PETROLEUM MAATSCHAPPIJ, To December 31st, 1913.

LIABILITIES.

| | Fl.* |
|---|---|
| Share Capital .. .. .. .. .. | 140,000,000.00 |
| Creditors .. .. .. .. .. .. | 12,805,152.54 |
| Advances on Consigned Products .. .. | 7,995,859.08 |
| Insurance Fund .. .. .. .. .. | 9,260,000.00 |
| Provision for Local Charges, Taxes, Royalties and Bonuses to Staff .. .. .. .. | 4,379,681.53 |
| Depreciation Account, 1907–13 .. .. .. | 39,566,744.07 |
| Dividend, 1913 .. .. .. .. .. | 31,500,000.00 |
| Carried forward .. .. .. .. .. | 755,813.61 |
| | Fl 246,283,250.83 |

ASSETS.

| | Fl.* |
|---|---|
| Properties and Rights .. .. .. .. | 118,800,746.44 |
| Shares in the Geconsolideerde Hollandsche Petroleum Cie .. .. .. .. .. | 6,416,339.44 |
| Shares in the Dordtsche Petroleum My .. | 31,650,000.00 |
| Shares in the Nederlandsch-Indische Tankstoomboot My .. .. .. .. | 5,000,000.00 |
| Shares in the Petroleum Maatschappij "La Corona" .. .. .. .. .. | 5,000,000.00 |
| Shares in the Societata Anonyma "Astra Romana" .. .. .. .. .. | 5,696,938.18 |
| Shares in the Société Anonyme pour l'Industrie du Naphte Standard Russe de Grozny" .. | 3,000,000.00 |
| Dutch Government Bonds .. .. .. | 64,732.50 |
| Office Furniture .. .. .. .. .. | 39,624.48 |
| Cash in hand and at Bankers .. .. .. | 17,062,296.08 |
| Debtors .. .. .. .. .. | 8,699,829.13 |
| Materials ashore and afloat .. .. .. | 4,703,605.47 |
| Products in stock .. .. .. .. .. | 8,425,515.15 |
| Stocks of Materials, etc., and Debtors of Dutch Indian Administration .. .. .. | 17,723,623.96 |
| Interim Dividend .. .. .. .. .. | 14,000,000.00 |
| | Fl. 246,283,250.83 |

* 12 Dutch florins equal approximately £1.

# Earl Grey and the British Union Oil Company, Ltd.

## INTERESTING ADDITIONAL DETAILS OF THE NEW CONCERN.

Following upon the information which we gave in a recent issue of the Review concerning the new and powerful company to be known as the British Union Oil Company, Ltd., which, with its capital of over £11,000,000, will acquire the controlling interest in the Union Oil Company of California, we are now in a position to publish further details of a most interesting nature.

At a luncheon given some days ago at the Hotel Alexandria, Los Angeles, Earl Grey mentioned the names of the gentlemen who were to be members of the London board of the British Union Oil Company, Ltd.

These gentlemen are Lord Pirrie, Mr. H. N. Anderson (Denmark), Sir William Edmund Garstin, Mr. Thomas Royden, Mr. Andrew Weir, Colonel Sir Edward W. D. Ward, and Mr. Arthur M. Grenfell, with Earl Grey as chairman of the company.

Taking the names of the gentlemen mentioned above in rotation,

Lord Pirrie is the chairman of Messrs. Harland & Wolff, the well-known shipbuilding firm, who have the distinction of being the largest firm of shipbuilders in the world ;

Mr. H. N. Anderson is the managing director of the East Asiatic Company, which operates a large fleet of vessels running on liquid fuel on the Diesel principle, of which the "Selandia" was the first ;

Sir William E. Garstin is a Government director of the Suez Canal Company, and as far back as 1872 entered the Indian Public Works Department ;

Mr. Thomas Royden is the deputy-chairman of the Cunard Steamship Company, and son of Sir Thomas Bland Royden of Liverpool ;

Mr. Andrew Weir is the head of the great firm of Messrs. Andrew Weir & Co., Bury Street, London, E.C.;

Col. Sir Edward W. D. Ward is the late permanent under-secretary of State ; and

Mr. Arthur M. Grenfell is of the firm of Messrs. Chaplin, Milne, Grenfell & Co. of London, and chairman of the same company's Canadian Agency in London.

At the function at Los Angeles to which reference has already been made, Earl Grey described the overshadowing importance of fuel oil as a source of power in marine transportation, and the important part which California is to play in furnishing the supply.

"The day is coming," he said, "and it is not far distant, when every ocean-going vessel will be propelled by oil as fuel. Petroleum is recognised as the fuel of the future, and we are preparing for the change. Our move in securing control of the large production in California, to enable us to transform our ships from coal-burning into the oil-burning type, is but one of many efforts which are now being made in Europe to secure a sufficient reserve of petroleum for use in marine transportation.

"I regard my company," he continued, "only as an advance guard of the thousands who will pour through the Panama Canal to the rich, abundant State of California to aid in the development of its resources not only oil, but every line of enterprise.

"Petroleum has been proved to be admirably adapted for use in marine transportation. It has been demonstrated that one load of oil is sufficient to supply the needs of a ship in completing a tour of the world. The ease with which petroleum may be handled, and the economic operation of petroleum engines has been adequately demonstrated. We have seen the future of California in relation to supplying the world's needs for oil for marine transportation, because this section is essentially the producer of fuel oil, and with this in our mind, we have invested our money to aid in the future development of the State."

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## MOTOR OWNERS' PETROL COMBINE, LTD.

### A Gratifying Report.

The report of the directors of the Motor Owners' Petrol Combine, Ltd., to be submitted to the first ordinary general meeting, to be held at the Princes Hall, Hotel Cecil, next Tuesday, states that the directors are glad to be able to congratulate the shareholders on the satisfactory result of the first ten months' trading. The net profit for the period, after deducting working expenses and London expenses, amounted to £46,334. 9s. 2d. The directors have written off the preliminary expenses and underwriting commission account, out of the profits, the sum of £5,000. The following amounts have been paid:—Interest on 6 per cent. (convertible) first debentures to June 30th, 1913, £1,919. 9s. 1d.; ditto, accrued to December 31st, 1913, £3,624; dividend on cumulative 8 per cent. participating preference shares to June 30th, 1913, £2,561. 12s. 9d., leaving a balance of £33,229. 7s. 4d.

The directors have also paid the half-year's dividend on the cumulative 8 per cent. participating preference shares, due January 1st, 1914 (£4,883. 6s. 4d.), and they now recommend a dividend of 10 per cent. on the fully-paid ordinary shares (£3,605. 16s.), leaving a surplus profit of £24,740. 5s. The directors propose (after carrying the sum of £6,185. 5s. to a reserve fund) to distribute the balance of the surplus profits in the following manner:—(*a*) In paying a further dividend of 1 per cent. on the cumulative preference shares, making the total dividend on such shares 9 per cent. up to December 31st last; (*b*) in paying a further dividend of 7 per cent. on the ordinary shares, making the total dividend on such shares 17 per cent. for the same period; (*c*) in paying a dividend of 4½d. per share on the deferred shares.

In order to make themselves conversant with the company's properties and their local management, the members of the board visited Galicia recently. They were completely satisfied with the progress being made and also with the diligent way in which the company's interests were being looked after by the very capable field managers and staff on the spot. The "Rockefeller" Well maintains its production of about 70 tons per day. The local management and working staff are to be congratulated on having repaired the recent breakdown at this well in what is believed to be a record time. The work on the other wells is progressing satisfactorily, and one of them, the "Morgan," is expected to reach the oil horizon shortly. The company's refinery at Thames Haven has been completed, and large stocks of spirit are in hand. The distribution arrangements of the company have made good progress, and the sale of "Combine" Spirit has already attained gratifying proportions.

The directors have decided to pay a bonus of 4d. per gallon upon all purchases of "Combine" Spirit up to and including the 31st May instant made by members of the company (for use in their own cars), having the requisite holding of £50 debentures and/or shares. Sir Robert D. Moncreiffe, Bart., A.D.C., who was elected by the board to fill the vacancy caused by the deeply-regretted death of Lord Arthur Cecil, being eligible, offers himself for re-election.

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Besides accommodation for LUBRICATING and ILLUMINATING OILS, there are exceptional facilities for the landing, storing and delivering, in bulk, barrels, cases, etc., of MOTOR SPIRIT, FUEL BENZOLINE, and similar OILS. Also excellent means of transit by water in bulk, barrels, etc., and Railway communication with all the leading Railways throughout the United Kingdom.

For further particulars and terms, apply—
**THE VICTORIA PETROLEUM COMPANY, Ltd.**
ELY HARBOUR, CARDIFF.

# NEW ENGLISH COMPANIES.

### CHARTERS AND OTHERS, LTD.

REGISTERED on May 22nd by C. Doubble, 14, Serjeants' Inn, Temple, E.C. Capital £100, in £1 shares. Objects: To acquire oil licences, concessions and properties, and to carry on the business of oil producers, and any allied businesses; also to enter into an agreement with E. Charters, for the acquisition of certain oil licences in New Brunswick. Signatories: W. M. Edwards, Swan House, Copthall Avenue, E.C., and A. J. G. Swinney, Lorne Villa, Sidcup, Kent. First directors (who are not to exceed five) not yet appointed. Private company.

### T. O. P., LTD.

Registered on May 23rd by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital, £1,000 in £1 shares. Objects: To acquire petroleum, naphthaline or oil-bearing lands in Trinidad, or elsewhere, or any interest in any such lands, or any rights of, or connected with the getting or winning of any natural gas, petroleum, or other oils and substances; to sink wells, make borings, and otherwise search for, obtain, develop, and deal, carry away, and sell petroleum and other mineral oils, etc., and the products thereof, and to carry on the business of dealers in and refiners of petroleum and other mineral oils, naphthaline, and other similar substances, etc.: also to enter into an agreement with The Puno Mines Syndicate, Ltd., and The Diamond Exploration and Finance Syndicate, Ltd. Signatories, R. Dolby, 19, Park View Crescent, New Southgate, N.; and W. H. Walford, 33, Kimberley Avenue, Seven Kings, Ilford, Essex. The first directors (to number not less than two nor more than seven) are to be nominated by the signatories, and no qualification shall be required. Until appointed the signatories shall be deemed for all purposes the directors. Private company.

### THE HYDROCARBON RESEARCH COMPANY, LTD.

Registered on May 25th by W. T. A. Rayner, 31, Evelyn Road, Walthamstow. Capital, £5,000 (4,000 preferred shares of £1 each and 20,000 deferred shares of 1s. each). Objects: To acquire any petroleum, shale, or oil-bearing land or any interest in such land, and to sink wells, make borings, and otherwise search for and get petroleum and other mineral oils and the products thereof, and to carry on the business of iron and steel masters, etc., and also the business of dealers in and refiners of petroleum and other mineral oils and the products thereof, and to construct reservoirs, pipes, pipelines, and any apparatus used in connection therewith, etc.; also to enter into agreements with (1) the Syndicat d'Etudes des Hydrocarbures, and (2) with A. Riehl, for his services as manager. Minimum cash subscription, £7. Signatories: A. A. Wilkins, 89, Leadenhall Street, E.C.; J. B. Hingdon and C. Barwell, both of 90 & 91, Queen Street, Cheapside, E.C.; K. Schiedh and H. Schiedh, both of 1 & 2, Baden Place, S.E.; B. Bruning, Westcliff; and H. Buzseth, Clapham, S.W. First directors (to number not less than two nor more than seven) are to be appointed by the signatories. Qualification (other than first directors), 100 shares. Remuneration, £75 per annum each (chairman, £100). Registered office, Madras Chambers, 89 & 90, Leadenhall Street, E.C.

### PETROLEUM SECURITIES AND GENERAL TRUST, LTD.

Registered on May 26th by Travers Smith, Braithwaite & Co., 4, Throgmorton Avenue, E.C. Capital £100,000, in £1 shares. This company has been formed for the objects of carrying on the business commonly carried on by financial, investment, and trust companies, etc., and will, in addition to transacting the usual business of a financial investment trust, direct its attention more particularly to investing in and financing first-class oil companies; also to enter into an agreement with the Anglo-Saxon Trust Company, Ltd. Minimum cash subscription, 20 per cent. of the shares offered. Signatories: A. Paget, 33, Seymour Street, W., K.C.B., K.C.M.G., Admiral R.N.; M. L. Braithwaite, Pinners' Hall, E.C.; G. Chichester, by R. C. F. Chichester (his agent, authorised in writing), Lloyd's, E.C.; F. Kayser, 481, Oxford Street, W.; G. Hume, 33, Revelstoke Road, Wimbledon Park, S.W.; H. E. Evans, Pinners' Hall, E.C.; and J. H Miles, 12, Gloucester Square, W. First directors: Admiral Sir Alfred Paget, K.C.B., M. L. Braithwaite, The Hon. Gerald Chichester, and F. Kayser. Qualification, £250. Remuneration, £100 per annum each (chairman, £150). Secretary (pro tem.) and registered office: G. Hume, Pinners' Hall, Austin Friars, E.C.

### THE PIASTOWE PETROLEUM COMPANY, LTD.

Registered on May 28th by Parker & Parker, Friars House, New Broad Street, E.C. Capital, £80,000 in £1 shares (40,000 preference). Objects: To bore, drill, excavate, mine, and operate for, discover, produce, and purchase oil, gas, and other minerals or substances; to erect derricks, tanks, power houses, and pipelines for the storage, transportation, and shipment of same, etc., and other structures, buildings, plants, or establishments of an industrial character; and to carry on the business of producers, importers, exporters, manufacturers, and refiners of oils and petroleum spirit, and of dealers thereof, and in all products capable of being made from or of which oil is an ingredient, etc.; also to enter into an agreement with the B. R. K. Syndicate, Ltd. Minimum cash subscription, seven preference shares. Signatories: F. Barker, J.P., Chatsworth Lodge, Chiswick, W.; F. Frankland, Baronet, 3, Queen's Gardens, Windsor; H. J. Turner, 29, Becket Avenue, East Ham, E.; C. Lupson, 276, Uplands Road, Dulwich, S.E.; G. Vivian, 37, Chelverton Road, Putney, S.W.; R. D. Temple, 54, Old Broad Street, E.C.; and J. A. Parker, "Southernhay," Bromley, Kent. First directors (who are to number not less than two nor more than nine) are F. Barker, J.P., Chatsworth Lodge, Chiswick, W.; F. Frankland, Baronet, 3, Queen's Gardens, Windsor; and R. D. Temple, 54, Old Broad Street, E.C.; the B. R. K. Syndicate, Ltd., shall at all times be entitled to have two nominees on the board of the company. Qualification (other than first and the directors appointed by B. R. K. Syndicate, Ltd.), £250. Remuneration, £100 each per annum (chairman, £150). When the profits of any year shall be more than sufficient to pay a dividend for such year at the rate of 10 per cent. on the capital paid up on the preference and ordinary shares, the directors shall be entitled, as additional remuneration, to a sum equal to 5 per cent. of the excess of such divisible profits over and above such 10 per cent. Registered office: 4, Broad Street Place, E.C.

# Additional Storages in the Mid-Continental Field.

## A BOOM IN OIL TANK CONSTRUCTION.

There has never been a time in the history of the oil industry, says a special writer in the *Oil City Derrick*, when so large an amount of storage was being built by so many different interests in any field, as now in the Mid-Continent territory. Contracting firms, who are builders of large steel storage tanks, are reaping a harvest. It is also a good time for the pipe-line and producing companies to build steel storage as the material is cheaper than it has been for years. The average cost of a 55,000-barrel tank is $11,000 and of a 37,500-barrel tank $9,000. If it was definitely known just how many tanks of these two sizes had been ordered for immediate use in the Mid-Continent field, the number would be found to be not far from 200. When the number of smaller tanks that will be built is taken into consideration, additional storage facilities for Mid-Continent will be provided for approximately 20,000,000 barrels within the next six months.

Instances have been noted in the past when as great an amount of storage has been built in comparatively as short a time, but it has been done by one or more of the large purchasing companies. At the present time, not only all of the large purchasing companies but many of the independent producers are providing their own storage. They are not going to this expense because they wish to, but as a matter of self-preservation. With the present prices of crude, and prospects for a still lower level, and the further fact that the pipe-lines are running only 75 per cent. of the oil produced, they are no doubt warranted in this form of investment. If they have the necessary financial backing to hold their oil in storage for a year or more, they will undoubtedly be rewarded with handsome returns on their investment. This has been the history of similar undertakings in the past.

The companies that are taking the lead in the building of storage are Messrs. White & Sinclair, Prairie Oil & Gas Company, the Texas Company, the Gulf Pipe Line Company, Gunsburg & Foreman, and the Quaker Oil Company. Messrs. White & Sinclair have a continuous order for 72, the first shipment of 15 now delivered on the ground; the Prairie has a continuous order, the first shipment of 20 being now delivered at its tank farm, one mile south of Terlton, Okla.; the Texas Company has a continuous order, the first shipment being 12 tanks, which will be built at Watkins, Okla.; the Gulf Pipe Line Company has a continuous order, the first instalment of 10 being now delivered at Perryman station. This means that these four large companies, before they have finished building storage, will quit with not less than a total of 200 tanks of the 55,000-barrel variety. In addition to this number, the smaller independent companies will build not less than 50 of the 55,000-barrel tanks.

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Dr. P. DVORKOVITZ.

**Laboratory: 45, ST. MARY AXE, E.C.**

Following is a list of the different companies with the number of tanks each has ordered, for which the material is either on the ground or on the way:—

| | |
|---|---|
| Prairie Oil & Gas Company .. .. | 20 |
| White & Sinclair .. .. .. | 15 |
| Gunsburg & Foreman .. .. .. | 12 |
| The Texas Company .. .. .. | 12 |
| Quaker Oil Company .. .. .. | 10 |
| Gulf Pipe Line Company .. .. | 10 |
| Pierce Oil Corporation .. .. | 10 |
| McMan Oil Company .. .. .. | 6 |
| T. B. Slick .. .. .. .. | 5 |
| B. B. Jones .. .. .. .. | 5 |
| Toxaway Oil Company .. .. | 4 |
| Devonia Oil Company .. .. | 1 |
| Steele Bros. .. .. .. .. | 2 |
| Kemp & King .. .. .. .. | 1 |
| Magnolia Petroleum Company .. | 10 |
| Corsicana Petroleum Company .. | 5 |
| Twin State Oil Company .. .. | 1 |
| Crosbie & Beatty .. .. .. | 1 |
| Coline Oil Company .. .. .. | 1 |

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## EXPORTS OF PETROLEUM PRODUCTS FROM BAKU DURING FEBRUARY.

The total quantity of petroleum products exported from Baku during February amounted to 13,412,337 poods. The following table shows the quantities of various products exported by rail, on the Caspian Sea, and by road:—

| | Rail. Poods. | Caspian Sea. Poods. | Road. Poods. |
|---|---|---|---|
| Kerosene ... ... | 3,645,850 | 1,330,186 | 124,135 |
| Lubricating oil ... | 758,985 | 274,681 | 24,532 |
| Solar oil (Light) ... | 15,918 | 801 | 11 |
| ,, (Heavy) ... | 330,621 | — | 990 |
| Residuals ... ... | 1,468,612 | 2,660,895 | 136,809 |
| Crude oil ... ... | 663,420 | 1,854,721 | 22,897 |
| Benzine ... ... | 94,291 | 841 | 3,141 |
| Totals ... ... | 6,977,697 | 6,122,125 | 312,515 |

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# The "Shell" Transport and Trading Company, Ltd.

## A THIRTY-FIVE PER CENT. DIVIDEND.

THE report of the directors of the "Shell" Transport and Trading Company, Ltd., for the year 1913, which is to be presented at the annual meeting to be held on the 22nd inst., is as under :—

The directors submit herewith the audited capital and revenue accounts of the company for the year ended December 31st, 1913.

Including the balance, £265,193. 13s. 6d. brought forward from 1912, there is a credit to the profit and loss account of £1,846,383. 9s. 7d.

Deducting management, legal and other expenses and depreciation on securities, which in all amount to £46,123. 16s. 3d., there remains £1,800,259. 13s. 4d. to be carried to the balance sheet.

From this amount preference dividends (absorbing £81,250) and interim dividends (absorbing £377,380. 10s. 0d.) have already been paid.

After payment of the dividends distributed and the transfer to reserve account hereinafter provided for, there remains a balance of £1,338,466. 16s. 7d., from which your directors recommend that a further and final dividend for the year 1913 of 5s. per share be paid on the 7th proximo (making 35 per cent. for the year), leaving a sum of £326,564. 6s. 7d. to be carried forward to the current year.

The dividend is paid free of income tax, which is charged at the rate of 1s. 2d. in the £.

The amount provided for depreciation for the year 1913 by the Anglo-Saxon and Bataafsche Companies is £1,218,000.

Depreciation again having been amply provided by the various subsidiary companies, your directors do not deem it necessary to appropriate out of the year's profits any considerable amount to reserve, but in order to bring this up to the round sum of £3,900,000 have allocated £3,162. 6s. 9d. to that purpose.

The cost of drilling and of geological surveys have, as usual, been charged to working expenses.

A further sum of 3,260,000 guilders has during the year been added by the Bataafsche to the insurance fund, which now amounts to 9,260,000 guilders, equal to about £760,000.

In accordance with the usual practice, summarised balance sheets of the Bataafsche Petroleum Maatschappij and of the Anglo-Saxon Petroleum Company, Ltd., are attached. It will be seen that as from the inception of those companies in 1907, £5,508,000 has been written off for depreciation.

Reports received from the Anglo-Saxon Petroleum Company, Ltd., and the Bataafsche Petroleum Maatschappij justify the payment on account of this year of an interim dividend of 1s. per share (i.e., at the rate of 10 per cent. per annum), which will also be made on the 7th proximo. Many shareholders having expressed the wish to have the dividend more equally distributed between January and July, it is not intended in future to continue the payment of interim dividends in July. In January, 1916, the whole interim dividend for 1915 will be paid, and the final only in July of that year, and this practice will be continued.

The representation of the company on the boards of the Anglo-Saxon Petroleum Company, Ltd., and the Bataafsche Petroleum Maatschappij remains unaltered. The directors retiring in rotation are Sir Marcus Samuel, Bart., Walter H. Samuel, R. J. Black, and R. Waley Cohen, who, being eligible, offer themselves for re-election.

Purveyors of Motor Spirit to His Majesty King George V.

**BRITISH PETROLEUM COMPANY, LTD.**

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**—LONDON, E.C.—**

# THE "SHELL" TRANSPORT AND TRADING COMPANY, LTD.

## PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DECEMBER 31st, 1913.

| Dr. | £ s. d. |
|---|---|
| To Management, Office Rent, Salaries, Directors' and Auditors' Fees | 13,500 10 6 |
| ,, Depreciation on Investments | 14,921 2 6 |
| ,, Expenses on New Issue of Preference and Ordinary Capital | 5,202 3 3 |
| ,, Stamp Duty on Increase of Capital | 12,500 0 0 |
| ,, Balance carried to Balance Sheet | 1,800,259 13 4 |
| | £1,846,383 9 7 |

| Cr. | £ s. d. |
|---|---|
| By Balance brought forward from the year 1912 | 265,193 13 6 |
| ,, Interest on Investments, Loans, etc. | 74,286 10 8 |
| ,, Dividends for the year 1913 from the Anglo-Saxon Petroleum Company, Ltd., the Bataafsche Petroleum Maatschappij, the Société Bnito, and the Société Mazout, and other Credits, *less* Expenses | 1,506,903 5 5 |
| | £1,846,383 9 7 |

## BALANCE SHEET AT DECEMBER 31st, 1913.

| Dr. LIABILITIES. | £ s. d. | £ s. d. | £ s. d. |
|---|---|---|---|
| Capital Authorised :— | | | |
| 300,000 Preference Shares of £10 each | | 3,000,000 0 0 | |
| 7,000,000 Ordinary Shares of £1 each | | 7,000,000 0 0 | |
| | | £10,000,000 0 0 | |
| To Capital Issued :— | | | |
| 200,000 Preference Shares of £10 each | | 2,000,000 0 0 | |
| 4,047,610 Ordinary Shares of £1 each | | 4,047,610 0 0 | |
| | | | 6,047,610 0 0 |
| ,, Reserve Account, 1912 | | 3,000,000 0 0 | |
| Premium on New Issue of Preference and Ordinary Shares, 1913 | £896,837 13 3 | | |
| Transfer from Profit and Loss Account | 3,162 6 9 | | |
| | | 900,000 0 0 | |
| | | | 3,900,000 0 0 |
| ,, Sundry Creditors on Current and other Accounts | | | 21,659 7 5 |
| ,, Amount Contributed on account of Dividend, payable January 1st, 1914, in terms of Notice dated October 10th, 1913 | | | 18,398 4 0 |
| ,, Dividend accrued to date on Preference Shares | | | 25,000 0 0 |
| ,, Profit and Loss Account :— | | | |
| Balance as shown above | | 1,800,259 13 4 | |
| *Less* Preference Dividend for 1913 | £81,250 0 0 | | |
| ,, Interim Dividend on Ordinary Shares paid July, 1913 | 175,000 0 0 | | |
| ,, Transfer to Reserve Account | 3,162 6 9 | | |
| | | 259,412 6 9 | |
| | | | 1,540,847 6 7 |
| | | | £11,553,514 18 0 |

APPROPRIATION OF PROFIT AND LOSS BALANCE.

| | £ s. d. |
|---|---|
| To Reserve Account, increasing the amount to £3,900,000 | £3,162 6 9 |
| Dividend on Preference Shares | 81,250 0 0 |
| ,, ,, Ordinary Shares, first Interim, paid July, 1913 | 175,000 0 0 |
| ,, ,, Ordinary Shares, second Interim, paid January, 1914 | 202,380 10 0 |
| | £461,792 16 9 |
| Final Dividend—Ordinary, payable July, 1914, making in all 35 per cent. per annum | 1,011,902 10 0 |
| To be carried forward | 326,564 6 7 |
| | £1,800,259 13 4 |

| Cr. ASSETS. | £ s. d. | £ s. d. |
|---|---|---|
| By Shares in the Anglo-Saxon Petroleum Company, Ltd. (£2,400,000), the Bataafsche Petroleum Maatschappij (Fl. 56,000,000=at Exchange Fl. 12 to £1, £4,666,666. 13s. 4d.), 7,680 Société Mazout Shares and 3,200 Société Bnito Shares, as per Balance Sheet, December 31st, 1912 | | £6,867,973 3 10 |
| ,, 9,600 Société Mazout Shares and 400 Société Bnito Shares at Cost | | 288,233 0 9 |
| | | 7,156,206 4 7 |
| ,, Debtors on Current and other Accounts | | 31,759 4 2 |
| ,, Bataafsche Petroleum Maatschappij, Anglo-Saxon Petroleum Company, Ltd., Société Bnito, and Société Mazout— | | |
| Dividends, year 1913 | £1,500,907 12 9 | |
| *Less* received | 303,232 12 11 | |
| | | 1,197,674 19 10 |
| ,, Investments at market prices or under | | 820,003 4 4 |
| viz. :—British Trustee Securities | £182,843 16 8 | |
| Other British Securities | 22,825 0 0 | |
| Foreign Government and Municipal Stocks | 61,934 0 0 | |
| Colonial Government, Railway and Municipal Stocks and Treasury Bills | 314,366 18 5 | |
| American Railway Short Notes and Foreign Treasury Bills | 238,033 9 3 | |
| | £820,003 4 4 | |
| ,, Anglo-Saxon Petroleum Company, Ltd., Loan Account | | 975,000 0 0 |
| ,, Do. do. Current Account | | 87,661 0 0 |
| ,, Bills Receivable | | 101,743 14 1 |
| ,, Fixed Deposits with Bankers | | 100,000 0 0 |
| ,, Cash at Bankers on Current Account and at short notice | | 1,083,466 11 0 |
| | | £11,553,514 18 0 |

# THE BURMAH OIL COMPANY, LTD.

## RECORD PROFITS FOR THE PAST YEAR.

The twelfth annual general meeting of the Burmah Oil Company, Ltd., was held on Wednesday in the Merchants' Hall, George Square, Glasgow. Mr. John T. Cargill, chairman of the directors, presided.

The Chairman, in moving the adoption of the annual report, which has already appeared in the Review, said: Before proceeding to the formal business of the meeting I should like in a few words to refer to the great loss which the company has sustained through the death of Mr. M. Tarbett Fleming, the last surviving director of the original Burmah Oil Company. In intimating Mr. Fleming's apology for his absence from our last general meeting on account of the illness which, unfortunately, terminated fatally in November last, I mentioned that that was the first general meting of the company which Mr. Fleming had missed since the inception of the original Burmah Oil Company over a quarter of a century before. That company was formed by my late father in 1886, with a nominal capital of £100,000 and an issued capital of less than half that amount, and from its formation till almost the day of his death Mr. Fleming took a keen and practically daily interest in its affairs. By his death the company has lost a faithful and valued director, and I and my co-directors a trusted and much esteemed colleague.

When I had the pleasure of meeting you a year ago, in referring to the prospectus for 1913, I ventured to depart from my customary caution in dealing with the difficult and rather delicate question of future prospects, and I took upon myself to say that I felt justified in expressing the hope that the results of our 1913 operations would be of an even more satisfactory nature than those for 1912. It is a source of great satisfaction to me, as it also is to my co-directors, that the very satisfactory report and statement of accounts which I am submitting to you to-day so fully justify the hopes I then ventured to hold out to you. The profits for 1912 were the largest in the history of the company, but the gross profits for 1913 exceed those for 1912 by no less a sum than £286,255. 15s. 4d. For this extremely gratifying result we have, in a large measure, to thank the greatly improved conditions of the oil industry and the higher range of values ruling for all oil products during the year under review; but the continued very satisfactory expansion of the kerosene oil trade in India, the most important item of our business, has been the main factor in the year's prosperity.

With such a substantial increase in profits your board feel, if possible, greater justification than ever in pursuing their settled policy of providing amply for depreciation in all directions, and of building up strong reserves, and they feel that they can confidently look to you for a continuance of the cordial support which you have invariably given to them in carrying out that policy and for your approval of what they have done in these directions in dealing with the profits for the year under review.

You will see from the balance sheet that, after writing £244,329. 7s. 10d. off the fields account, £54,373. 10s. 6d. off the pipeline account, £62,058. 2s. 10d. off the tankers and tank installation account, and placing £80,000 to fields reserve account, the profit transferred from the Rangoon accounts to the profit and loss account amounts to £962,026. 19s., as compared with £755,262. 7s. 11d. in 1912, and that, after paying income tax, directors' fees, and all home charges, interest on debenture stock, premium on debenture stock redeemed, writing off £79,880. 19s. 6d. for depreciation on the refineries, and placing £20,000 to the insurance fund, the balance carried to the balance sheet amounts to £874,987. 15s. 10d., as compared with £634,740. 14s. 3d. in 1912. From this fall to be deducted the £220,000 in payment of the balance of the debenture stock, in accordance with the resolution of the directors—intimation of which I gave you at the last annual meeting—and the interim dividends paid in November. This leaves a balance of £483,862. 15s. 10d., which your directors recommend should be applied in payment of the final preference dividends amounting to £28,250, and of a final dividend of 1s. 6d. per share, and a bonus of 2s. 6d. per share on the ordinary shares, amounting together to £381,000, leaving £74,612. 15s. 10d. to be carried forward to 1914.

The debenture stock being now all redeemed, your directors felt that there was no longer any object in showing the debenture stock redemption fund as a separate reserve account, and they therefore placed the above £220,000 and transferred the £180,000 standing at debenture stock redemption account to general reserve, thus bringing up the amount at the credit of that account to £850,000. I would like you to note that in addition to the insurance reserve and the fire and marine insurance account, which are ear-marked for special purposes, and which now total £321,803. 19s. 1d., the reserve funds of the company now aggregate over £1,000,000—namely, general reserve £850,000, capital reserve £80,000, and share premium £135,000, total £1,065,000.

I have no outstanding developments to refer to as the result of the year's operations in the oilfields, and the position taken all over is much the same as it was when I dealt with it pretty fully twelve months ago. Our most active drilling operations are still being carried on in the Twingone area of the Yenangyoung field, where the continued rapid exhaustion of the upper oil sands is forcing all the companies operating there to drill deeper and deeper in search of fresh oil sands. During the past year we in common with these other companies have sunk a large number of wells to depths varying from 2,000 ft. to 2,600 ft., with a continuance of the extraordinary varying results to which I referred last year, some of the wells giving excellent initial yields, whilst others, drilled into apparently the same sands, gave comparatively poor productions. I have for several years past drawn your special attention to the steadily increasing expenditure involved in these deeper drilling operations, and the increase of in round figures £45,000 on the 1913 field expenditure, compared with 1912 is almost entirely due to this deeper drilling. You will see that we have once more written off the entire expenditure during the year in the oilfields, and have also placed the customary £80,000 to fields reserve account, thereby providing in prosperous times against the eventual exhaustion of these fields. So far in Twingone, as each oil sand developed has become exhausted, or the yield of oil has fallen to a small number of barrels per day, it has only been necessary to drill down another 50 ft. or 100 ft. to strike a new sand, but, of course, this sort of thing cannot go on indefinitely, and sooner or later we are bound to get to the bottom of this marvellously rich oilfield, which is already unique amongst the oilfields of the world in respect of the extraordinary number of oil sands developed.

Of Singu I can to-day repeat with emphasis the very favourable reports I have given you in the past in regard to this field. Developments during the year have been of a most satisfactory nature, and have further proved the richness and resources of the territory we hold there. On the other hand, drilling operations in Minbu field continue of a most disappointing character, and neither have we, nor, so far as I am aware, have any of the other companies operating there, obtained any encouraging results during the year.

With none of our outside tests have we had any success, and since the close of the year we have totally abandoned five more of these. While it is very disappointing that we have spent so much time, money, and energy on these outside tests, it was our bounden duty to do everything in our power to discover new oilfields in Burma if such existed, and it is still our intention to put to the practical test of the drill any territories our geologists may discover which hold out a reasonable prospect of being oil-bearing. Two years ago Sir Thomas Holland told you that as a result of his most careful examination on the spot into the reports and maps made by the company's geologists on all the territories on which these testing operations had been undertaken, he was convinced that the very greatest care and discrimination had been shown in the selection of these areas; and, as showing that our geologists were on the whole justified in recommending these tests, I would mention that in the majority of cases oil was struck in the test wells, although, unfortunately, the oil sands were not of a prolific or lasting enough nature to make a payable proposition.

To the operations carried on at the refineries throughout the year I can refer with the greatest satisfaction. Not only has a larger quantity of crude oil been put through than in any previous twelve months, but in the case of every one of the finished products, the quantity manufactured constitutes a record. By improvements and additions to plant and improved methods of working, the quality of some of our products has been materially improved, and in one or two instances a considerable reduction in costs has been effected. These important questions of improved qualities and reduced costs are receiving our constant attention and that of our managers and chemists, and I may mention that we have recently made arrangements for installing and testing on a considerable scale a new process, from which we expect very important results in the direction of improving the quality of some of our lubricating oils and of our higher-grade kerosene oils. Last year I told you that we had under consideration a scheme for a further increase in our production of lubricating oils, and I am glad to be able to tell you that, by the addition of a comparatively small quantity of new plant, the production of those oils was increased by nearly 10 per cent. over that of 1912, although this new plant only came into operation in the second half of the year. Of the pipeline I can give you the usual excellent report. Not a stoppage at all of a serious nature occurred during the year, and a record quantity of crude oil was pumped from the fields to the refineries. You will see that we have made the usual ample provision for the depreciation and amortisation of the line.

After a long spell of complete immunity from anything in the nature of a serious accident to our tank steamers, I deeply regret to have to refer to the disaster which overtook the S.S. "Twingone" in the month of November. While discharging a portion of her cargo at Tuticorin an explosion occurred on board a lighter, into which a quantity of tinned petrol had been transferred, and as a result the kerosene oil in bulk, of which her cargo principally consisted, took fire. So quickly did this occur that the only way in which those on board could escape was to jump into the sea, and I deeply deplore to have to report that eight lives were lost—the captain's little daughter, the first and second engineers, the son of the port officer of Tuticorin, who was visiting the steamer, and four natives. After burning for six weeks the fire was eventually extinguished, and after temporary repairs, the steamer was safely towed to Bombay, but it was found that it would be impossible to repair her satisfactorily except at a prohibitive cost, and a mutually satisfactory arrangement was arrived at between the company, which ran 25 per cent. of the risk, and the underwriters, by which she was abandoned. Another steamer was at once chartered to take her place, and an order is on the point of being placed for a considerably larger tank steamer to replace the "Twingone." This disaster brought home to us very forcibly the undoubtedly greater risk there is in transporting petrol by our tankers from Rangoon to India in tins instead of in bulk, and although just at present the volume of the trade does not seem to warrant the great expense that will be entailed in erecting the necessary special tankage and tinning plants for petrol at our main installations in India, yet we have decided to do this in the hope and expectation that the trade will continue to expand steadily, and will so eventually recoup us for this large outlay.

In this connection I would mention that, as in the case of kerosene oil, we have fixed an extremely reasonable price for our high-grade petrol in India with a view to encouraging in every way in our power the expansion of the trade. This price is a rupee—say, 1s. 4d.—a gallon retail in the four principal ports—Calcutta, Bombay, Madras, and Karachi, where we have our main depots—a much lower price, I think I can safely say, than the motorist can buy 715 motor spirit at in any other country in the world. Of course, in any places outside of these four main depots the cost of carriage from the main depot is added on to the price. You will see that considerable additions have been made to the tankers and tank installation, etc., account. These include a small second-hand tanker, but consist principally of additions to and improvements in the network of installations and distributing depots, which have done so much to bring about the very gratifying increase in our Indian kerosene oil trade.

Interest and dividends have, you will see, yielded £42,236. 11s. 3d., as against £23,553. 3s. 9d. in 1912. This substantial increase is principally due to the much larger amount of cash we hand on hand throughout the year, and for which, owing to the dearness of money, we were able to command good rates of interest during the greater part of the year; but increased dividends on two of our largest investments also contributed materially to the increase. Last year I told you that, leaving out of account our holding of ordinary shares in the Anglo-Persian Oil Company, the dividends received during the year on our investments showed a return of practically 6½ per cent., and for 1913 the return is equal to 7½ per cent.—a very satisfactory figure, I am sure you will agree.

We have taken, as you know, an equal participation with three others in the United British West Indies Petroleum Syndicate, Ltd., at present prospecting in the island of Trinidad under an exploration licence obtained from the Government of that island. This exploration licence will be converted into a prospecting licence so soon as the geological examination enables a selection to be made from the lands under option, and the syndicate can later claim from Government a lease on such portion of the lands as still further examination may seem to justify. Concurrently with this work the syndicate is managing the fields and properties of the United British Oilfields of Trinidad, Ltd., a company which was formed, under circumstances already made public, to take over the assets and properties of the Trinidad Oilfields, Ltd. Since effective control was taken over in August last, considerable progress has been made in the cleaning up of old wells and the putting of the field into shape for future operations. Several wells previously non-producing, or whose production had fallen to an insignificant volume, have been revived, and they and some new wells have now given considerable production. The problem of securing a regular production from the wells, which have hitherto been somewhat erratic, appears to be approaching solution, and there is now a good prospect of obtaining a steady and regular production. The available tankage has been full for some time, and it has been necessary to restrain production for want of storage and outlet, and also to flow wells into earthern storage—never a satisfactory expedient. Steps have now been taken to erect a large tank farm, which it is hoped will enable our syndicate to develop a steady business both from the side of production and from that of marketing. A contract has also been entered into for the erection of plant for the treatment of the crude oil, and the syndicate hopes shortly to be in a position to start marketing fuel oil.

In a business of the magnitude of ours, which embraces the production of the raw material, the manufacture of a great variety of highly refined products, and the transport, distribution, and marketing of all these products, you will, I am sure, realise how much the success of our operations depends on the skill and energy with which every one of these varied and important branches of our business is carried on. It has been my custom in the past to ask you to authorise me to convey to our managers, agents, officers, and staff an expression of your appreciation of the good work they have done during the period under review, and this year, with such splendid results before you, I feel I can ask you for that vote of thanks with even greater confidence than usual. It is my intention during the coming winter to pay one of my periodical visits of inspection to India and Burma, during the course of which I look forward to the pleasure of again meeting all our managers, agents, and the members of our executive staffs, and I should like to be able to tell them all personally that your response to this request of mine for a vote of thanks to them was such as to leave no doubt in my mind as to its sincerity and heartiness.

You will, of course, be expecting me to make some reference to the arrangement which the Anglo-Persian Oil Company has just concluded with his Majesty's Government, but, as is my custom in dealing with questions pertaining to the position and management of that company, my reference will be of a comparatively brief and general nature; and, moreover, the report of the proceedings at the Anglo-Persian Company's meeting, held last Friday, a copy of which was posted to all shareholders in the Burmah Oil Company on Monday of this week, deals so fully with the whole matter as to call for no amplification or explanation from me here. At our annual meeting in May, 1909, in referring to the flotation of the Anglo-Persian Oil Company, I used the following words: "By the policy we have pursued, Gentlemen, we have not only secured for the Burmah Oil Company the predominant interest in what we firmly believe to be this great oil concession, but we have also secured for the British Empire what we have every reason to believe will in time prove a great national asset, and we have prevented the possibility of its falling into the hands of foreigners." It is a source of deep satisfaction and gratification to myself and to my colleagues in both the Burmah Oil Company and the Anglo-Persian Oil Company to see the hopes and beliefs we all cherished now brought to full fruition. The only regret we have is that three of our directors, Messrs. Tarbett Fleming, Leonard Gow, and Robert King, who all along approved most heartily of our policy in connection with Persia, and that great Empire builder, Lord Strathcona, who took the chairmanship of the Anglo-Persian Oil Company purely from the national point of view of "oil fuel for the Navy," should not have lived to share our satisfaction.

Your interest in the Anglo-Persian Oil Company, as shareholders in the Burmah Oil Company, is represented by the holding by the Burmah Oil Company of 949,864 Anglo-Persian Oil Company's Ordinary shares, and I feel sure that you must all so fully realise the great advantages that should eventually accrue to the Burmah Oil Company, and therefore to you through that holding, and by the arrangement come to between the Government and the Anglo-Persian Oil Company, that it is quite unnecessary for me to point them out to you in detail here, especially as this was done so fully by the chairman at the Anglo-Persian meeting, of which the report is in your hands. Before I leave this subject I would like to say that I was sorry to see lately in more than one newspaper an absolutely baseless rumour of a contemplated distribution of Anglo-Persian Oil Company's shares among Burmah Oil Company shareholders, and I take this opportunity of stating that, not only have there never been the slenderest grounds for this irresponsible rumour, but that neither I myself nor any of your directors can imagine the possibility of circumstances arising such as could ever induce your board even to contemplate such a distribution.

Of the prospects for the current year I feel bold enough to speak with a considerable degree of confidence. With the exception of paraffin wax, which is at present in an unsatisfactory position owing to the keen competition to market the increased supplies coming from several quarters, prices of all our products are being well maintained; and even in regard to wax the reduction we have recently been able to effect on the cost of production offsets to some extent the fall in the price. As already mentioned, the Indian kerosene oil trade—the sheet anchor, so to speak, of our business—continues to expand in the most gratifying manner; and while this has undoubtedly been due to a large extent to the general prosperity of India during the past few years, and also to the energy and enterprise displayed by ourselves and other companies in enlarging and extending our installations and distributing organisation, still I think I can confidently say that the wonderful growth of the trade is in a large measure due to the policy we adopted about nine years ago of fixing a reasonable maximum price all over India for our Victoria quality of kerosene, for when merchants and consumers know they can depend on getting full supplies of an article at all times at or below a fixed maximum price, it gives them a confidence to deal in and stock that article, which otherwise they could not have, and the trade benefits accordingly. Taken all over, then, the outlook is, I think, such as to warrant my expressing the strong hope, if not even the belief, that the results of the present year's operations will in due course prove to be of a thoroughly satisfactory nature. I now beg to propose "That the report of the directors and audited statements of accounts, including the balance sheet and profit and loss account to December 31st, 1913, presented to the meeting, be received, approved, and adopted." He added that he felt sure the shareholders shared in the directors' pleasure in seeing at the meeting their old friend and technical adviser, Sir Boverton Redwood.

Mr. C. W. Wallace formally seconded the resolution, which was carried unanimously.

The Chairman then said: I have now to propose "That the following dividends and bonuses recommended by the directors, namely, (1) on the six per cent. first preference shares of £1 each, 7½d. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), amounting, after deducting income tax thereon, to £7,062. 10s.; (2) on the six per cent. second preference shares of £10 each, 6s. per share (equivalent to 6 per cent. per annum from June 30th to December 31st, 1913), amounting, after deducting income tax thereon, to £21,187. 10s. 1d.; (3) on the ordinary shares of £1 each, numbered 1 to 1,905,000 inclusive (A) 1s. 6d. per share (equivalent to 15 per cent. per annum from June 30th to December 31st, 1913), free of income tax, amounting to £142,875. (B) bonus of 2s. 6d. per share, free of income-tax, amounting to £238,125—be approved, and that the balance, amounting to £74,612. 15s. 10d., be carried forward."

Mr. Morton formally seconded the resolution, which was carried.

Mr. W. J. Chrystal: Gentlemen, I have the duty to perform of asking you to re-elect Mr. John T. Cargill as a director of this company. It would be invidious on my part and quite unnecessary to praise Mr. Cargill, who is known to the great majority of the shareholders; if he is not known personally to them, he is known by reputation. You know how he carries on this huge business; he goes abroad regularly in connection with it, and he is going abroad again. I ask you to re-elect him as a director.

Sir Samuel Chisholm, in seconding the motion, expressed the wish of the shareholders that Mr. Cargill might have a safe and prosperous voyage.

The resolution was agreed to.

Mr. Cargill: I have just one word to say. Thank you very much indeed for the hearty way in which you have re-elected me, and I can assure you that I will take the same deep interest in the company which I have always taken in it since it grew up from its infancy. I feel very proud to preside at a meeting which has expressed its approval of everything the directors have done and its gratification at the splendid results the business has continued to show. Continuing, he said: The pleasant duty now falls upon me to propose the re-election of my friend Mr. C. W. Wallace to the board, and in doing so I feel that there is not much that I need say to you, because Mr. Wallace's claims to re-election are, I am sure, well known to most of you. At the same time I welcome this opportunity of expressing to you my own personal feeling of gratification that Mr. Wallace is still with me, personally, and with all the board. He has been a director since the year 1902, when he and I were elected together, and it is rather a melancholy thought to me that Mr. Wallace and I are to-day the only survivors of that board. No one knows better than I do what Mr. Wallace has done for the Burmah Oil Company during these twelve years, and the amount of time and attention that he has given to the company's business, and to the many very important questions we have had to consider and decide in this period; and his long business experience, his sound judgment, and, above everything, I think, his great foresight, have been of the very greatest benefit to the board and to the Burmah Oil Company. I have, therefore, the greatest pleasure in asking you to support the re-election of Mr. Wallace to the board.

Dr. Hutchison seconded the motion, which was carried.

The Chairman: I have now also pleasure in asking you to confirm the board's action in electing Sir Campbell Kirkman Finlay to the vacancy caused by Mr. Fleming's death. As in the case of Mr. Wallace, I feel I cannot say very much about him because to a great many of you he is already personally well known by the work he has done for the company. Sir Campbell is the son of the late Mr. Kirkman Finlay, who was one of the pioneers of the company and the managing director for several years before his death. Sir Campbell has inherited the extraordinary energy that his father possessed and also his great devotion to the Burmah Oil Company. He was for fourteen years in Rangoon, during the last eight of which he was in charge as chief representative of the company's business there, and when, in 1912, he left Burma and came home to this country for good, his Majesty signified the appreciation of Burma and India of the services Sir Campbell had rendered to Burma, both in connection with the oil industry and in many other directions, by conferring upon him the honour of knighthood. Sir Campbell is now staying in London, and in the London office is devoting the same energy to the company's aims and objects that he did all those years in Rangoon, and I have the very greatest confidence in asking you to re-elect him as a director.

Mr. J. P. Hay seconded the resolution, which was adopted.

On the motion of Mr. W. S. Brown, seconded by Mr. R. J. Wilkinson, Mr. R. A. Murray was re-appointed auditor.

The Chairman then intimated that that concluded the business.

Mr. D. Brodie McLeod: I do not think we could part without expressing a hearty vote of thanks to our chairman. We have had a very excellent report placed before us, and we have had a rather optimistic speech from the chairman. With one exception I would say it was optimistic. These wells that we have hoped to strike in adjacent territories have not yet come off. You do not strike wells every day, but I am still hopeful that in some of these adjacent territories the Burmah Oil Company may strike good wells. Without saying any more I have great pleasure in proposing a very hearty vote of thanks to our chairman.

The Chairman: I cannot say how very highly I appreciate the expression of your confidence in me. I repeat that I have the interests of the company so deeply at my heart that I shall, as long as possible, carry on and do everything in my power to continue the prosperity of the company. At the same time, I would also just like to say that if it had not been for the magnificent support which I have always had from my board, from my managers, and from all my staff, you could not possibly have seen the magnificent results you see to-day.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

June 5th, 1914.

The prices of Refined Petroleum remain unaltered as follows :—Russian, 7d. ; American, $7\frac{1}{4}$d. ; American Water White, $8\frac{1}{4}$d.; Roumanian, $6\frac{3}{4}$d. ; Galician, $6\frac{3}{4}$d.

### LUBRICATING OILS.

The official quotations are :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL

is quoted 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL.

The market price is 70s. per ton, in bulk, ex wharf.

### GAS OIL.

The official price is $3\frac{1}{4}$d. per gallon, in bulk, ex wharf.

### MOTOR SPIRIT.

1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality, represent the retail prices in London.

### TURPENTINE.

The Turpentine market is steady, quotations being for spot, 32s. $7\frac{1}{2}$d. ; July/August, 33s. $10\frac{1}{2}$d. ; September/December, 33s. 9d. ; January/April, 34s. 9d.

## LIVERPOOL.

June 4th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, $8\frac{1}{4}$d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## AMERICA.

New York, June 4th.

Refined, in cases, is still quoted at 11·10 ; Standard White, 8·60 ; Credit balances, 1·90.

Philadelphia, June 4th.

Standard White is quoted at 8·60.

## RUSSIA.

Baku, June 2nd.

The tendency of benzine is lower, that of gas oil and lubricating oils steady. Crude oil is quoted at $34\frac{3}{4}$–$35\frac{3}{4}$ copecs per pood spot. Kerosene, 45–$45\frac{1}{2}$ copecs. Residuals, $33\frac{3}{4}$–$34\frac{1}{4}$ copecs.

## ROUMANIA.

June 2nd.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·20–7·50 |
| ,, ,, ,, | Tzintea ... | 5·80–6·50 |
| ,, ,, ,, | Policiori... | 6·25–6·50 |
| ,, ,, ,, | Bordeni ... | 8·75–9·00 |
| ,, ,, ,, | Bana ... | 9·00–9·50 |
| ,, ,, ,, | Baicoi ... | 7·50–8·25 |
| Paraffin ... ... ... ... ... | | 125 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... ... ... ... ... | 8·00 |

## GERMANY.

Hamburg, June 3rd.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

June 2nd.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date June 4th, as follows :—

Owing to a further drop in the price of tin, which has touched the lowest price recorded since 1909, prices of tinplates are to-day easier, and makers' quotations are approximately as under :—

| | | | | | | |
|---|---|---|---|---|---|---|
| 1c | $18\frac{3}{4}\times14$ | 124 sheets | 110 lbs. | ... | $12/7\frac{1}{2}$ | per box. |
| 1c | $20\times10$ | 225 ,, | 156 ,, | ... | $17/7\frac{1}{2}$ | ,, |

F.o.b. Swansea. Tin lining and iron hooping extra, as usual.

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO HOLLAND.

The imports of petroleum products into Holland during February amounted to 55,538 tons. The imports from the various countries were as follows :—

| | Tons. |
|---|---|
| Russia ... ... ... ... ... | — |
| United States ... ... ... ... | 52,918 |
| Belgium .. ... ... ... .. | 2,290 |
| Other countries... ... ... ... | 330 |
| Total ... ... ... ... | 55,538 |

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO SPAIN.

Statistics for 1913.

The imports of petroleum products into Spain during 1913 amounted to 92,838 tons, as against 84,750 tons imported during 1912. The imports of the various products were as follows :—

| | Tons. |
|---|---|
| Crude oil ... ... ... ... | 40,545 |
| Lubricating oil ... ... ... ... | 12,432 |
| Paraffin ... ... ... ... ... | 5,408 |
| Asphalt ... ... ... ... ... | 34,453 |
| Total ... ... ... ... | 92,838 |

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# The American Oil Market.

### Saturday, May 16th, 1914.

The week's developments in the crude situation, says the *Oil Paint and Drug Reporter*, has been of a more significant character in marking the downward tendency of values. The most notable change has been the break in the high-grade Pennsylvania oil from the $2 basis to $1·90, putting the market back to the level of December, 1912, and operators have become discouraged that further declines are in order. A summary of the week's changes is as follows :—

| | Previous week. | Current week. | Date of change. |
|---|---|---|---|
| Pennsylvania ... ... | $2.00 | $1.90 | May 11 |
| Mercer, black ... ... | 1.50 | 1.40 | ,, 11 |
| Cabell ... ... ... | 1.57 | 1.47 | ,, 11 |
| New Castle... ... ... | 1.50 | 1.40 | ,, 11 |
| Corning ... ... ... | 1.15 | 1.05 | ,, 11 |
| Somerset ... ... ... | 1.10 | 1.05 | ,, 11 |
| North Lima ... ... | 1.24 | 1.19 | ,, 12 |
| South Lima ... ... | 1.19 | 1.14 | ,, 12 |
| Indiana ... ... ... | 1.19 | 1.14 | ,, 12 |
| Princeton ... ... ... | 1.20 | 1.15 | ,, 12 |
| Wooster ... ... ... | 1.51 | 1.46 | ,, 12 |
| Illinois ... ... ... | 1.20 | 1.15 | ,, 12 |

Of further interest upon the crude situation is the record of pipeline statistics for May, which tend to bear out the conditions effecting the recent declines. The runs have shown gains in the general Pennsylvania, Indiana and Mid-continent oils, while the only increase in deliveries has been in the Mid-continent product. The gain in stocks at the close of April included Pennsylvania, Lima, Kentucky, Illinois and Mid-continent oils. Including the Texas fields the gain in stocks during the month amounted to 2,696,574 barrels.

Advices from the Kentucky field indicate a check to proposed wildcat drilling pending a more settled state of the crude market. The test drilling which has been in progress in the western section has been retarded by the remoteness from supplies and the unknown character of the formations from which results might be expected. Drilling in the deep sand districts may be abated at the less promising returns. The most encouraging result of wildcat operations has been a well in Wolfe county, several miles from the old Campton district, which was reported showing for twenty barrels.

A review of the Lima fields of North-western Ohio and Indiana shows the principal change in a heavy decline in completions and new production in Indiana, while the Shelburn pool of Sullivan county attracts principal attention in the State, late completions have shown less favourable results. The average of the week for the field has been fifty-two and one half barrels per producing well. The most creditable showing in the Ohio end has been in the fact that all of the completions came in producers, but their average was light, about sixteen barrels. There was no material change in the week's results in Illinois. Crawford county continues well in the lead in completions, but its lead in new production was more closely approached by Lawrence county. The most significant result of the week was the bringing in of a wildcat well near Plymouth, McDonough county, which was reported to be showing for a good well at 430 feet. There has been a rush for leases upon the adjoining territory, as the shallow depth at which the oil was found encourages further operations, even on the declining course of the crude market.

There have been some unusually interesting developments in the Mid-continent situation during the week, the principal event being the presentation of a resolution to the Senate of a protest by independent producers, against the cutting of prices of Oklahoma oils, and urging the establishment of a government pipeline from Oklahoma to the Gulf ports as well as for a Federal bureau to govern pipelines.

### Refined Products.

The announcement of a decline of 15 points in the export schedule of illuminating oil Saturday morning was accepted as a reasonable development of the crude depression as well as the backwardness of refined consumption. Revised quotations are 5·10 cents in bulk, 8·60 cents in barrels, and 11·10 cents in cases for 110 test, with 150 test at a premium of 1 cent. This is the first change in export prices since October 23rd last, when bulk and cases were advanced 25 points and barrels 5 points. There was no variation in quotations for local account. Justification for the maintenance of refined prices had been advanced on the ground that refiners of refined, for which the recent market afforded no attractive returns. In some cases refiners were said to be selling products of crude oil bought at the high level of last year and were not able to close on a cost basis for the products.

### CLOSING QUOTATIONS.

#### Crude at the Wells.

The quotations for oil represented by credit balances were :—

| | 1913. May 16. | 1914. May 16. |
|---|---|---|
| Pennsylvania ... ... ... ... | $2.50 | $1.90 |
| North Lima ... ... ... ... | 1.37 | 1.19 |
| South Lima ... ... ... ... | 1.32 | 1.14 |
| Indiana ... ... ... ... ... | 1.32 | 1.14 |
| Illinois ... ... ... ... ... | 1.30 | 1.15 |
| Kansas and Oklahoma ... ... ... | 0.88 | 0.75 |
| Humble, Tex. ... ... ... ... | 0.90 | 0.45 |
| Saratoga ... ... ... ... ... | 0.90 | 0.50 |
| Sour Lake, Tex.... ... ... ... | 0.85 | 0.45 |
| Californian, Coalinga light ... ... | — | 0.85 |
| ,, Kern River heavy ... | — | 0.40 |
| CANADIAN OIL ... ... ... ... | 1.77 | 1.64 |

#### Refined—For Export.

| In cents. | | Week ended May 16 S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·10 | 6·10 |
| Barrels, New York, cargo ... | ... | 8·60 | 9·60 |
| Barrels, Philadelphia ... ... | ... | 8·60 | 9·60 |
| Cases, New York ... ... | ... | 11·10 | 12·10 |
| Cases, Philadelphia ... ... | ... | 11·10 | 12·10 |

#### Naphtha and Gasoline.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 20 |
| Gasoline, 86 deg. ... ... .. ... ... | 28 |

#### Refined in Cases—110 Fire Test.

| | |
|---|---|
| 5,000 to 10,000 ... ... ... .. ... ... | $11.10 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.35 |

#### Refined—Jobbing Lots.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 793,860 | 136,436,904 | 54,768,593 |
| Refined ... ... | 8,458,420 | 309,955,265 | 309,566,502 |
| Naphtha ... | 4,482,560 | 57,396,640 | 47,107,575 |
| Gas oil ... ... | 2,861,540 | 19,049,460 | 18,104,920 |
| Fuel oil... ... | 14,800 | 20,567,255 | 39,143.840 |

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# IMPORTS OF PETROLEUM PRODUCTS INTO THE UNITED KINGDOM.

**Specially prepared for this Journal by the Customs House.**

FOR THE WEEK ENDED JUNE 1st, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| May. | London— | | | |
| 26 | C. Shaw, Lovell & Sons ... | Lub. | 870 | New York |
| 26 | Mercantile Lighterage Co.... | ,, | 2.000 | ,, |
| 27 | Vacuum Oil Co. ... ... | ,, | 65,660 | ,, |
| 27 | ,, ... ... | Lub. Gr. | 1,080 | ,, |
| 27 | Port Authority ... ... | Lub. | 5,130 | Hamburg |
| 27 | Anglo-Saxon Petroleum Co. | Crude | 367,500 | Tampico |
| 27 | ,, ,, | Gas | 394,500 | Port Arthur |
| 28 | A. Duckham & Co. ... ... | Lub. | 600 | Antwerp |
| 28 | Anglo-American Oil Co. ... | Gas | 2,254,350 | New York |
| 28 | ,, ,, ... | Lub. | 32,280 | ,, |
| 29 | ,, ,, ... | Gas | 1,321,900 | Philadel. |
| 29 | E. G. Boize .. ... ... | Lub. | 210 | Hamburg |
| 29 | Port Authority ... ... | ,, | 200 | ,, |
| | Liverpool— | | | |
| 26 | J. T. Fletcher & Co. ... | ,, | 440 | Antwerp |
| 26 | Wilkinson Bros. ... ... | ,, | 510 | Ghent |
| 26 | Liverpool Storage Co. ... | ,, | 2,000 | New York. |
| 26 | W. B. Dick & Co. ... ... | ,, | 6,000 | ,, |
| 26 | Huxley & Co. ... ... | ,, | 3,290 | ,, |
| 26 | Vacuum Oil Co. ... ... | ,, | 1,690 | ,, |
| 26 | ,, ... ... | ,, | 3,200 | ,, |
| 26 | Anglo-American Oil Co. ... | ,, | 15,000 | ,, |
| 26 | ,, ,, ... | ,, | 16,000 | Baltimore |
| 26 | Meade-King, Robinson & Co. | Lub. Gr. | 2,600 | ,, |
| 27 | W. Gibson & Sons ... ... | Lamp | 2,050 | Boston |
| 27 | J. Light & Son ... ... | Lub. | 4,000 | New York |
| 28 | D. Currie & Co. ... .. | ,, | 40 | Hamburg |
| 28 | A. B. Fleming & Co. ... | Lub. Gr. | 180 | .. |
| 28 | Meade-King, Robinson & Co. | Lub. | 3,000 | Baltimore |
| 28 | Liverpool Storage Co. ... | ,, | 4,340 | N. Orleans |
| 29 | F. Guest ... ... ... | ,, | 2,640 | Hamburg |
| 30 | Vacuum Oil Co. ... ... | ,, | 14,400 | New York |
| 30 | Valvoline Oil Co. ... | ,, | 22,960 | ,, |
| 30 | ,, ... ... | Lub. Gr. | 210 | ,, |
| 30 | Burnaby & Chantrell ... | ,, | 600 | ,, |
| | Bristol— | | | |
| 26 | Asiatic Petroleum Co. ... | Benzine | 1,135,700 | Rangoon |
| 26 | J. & R. Bush... ... ... | Lub. | 22.880 | New York |
| 28 | First Anglo-Russian Oil Co. | ,, | 270 | Hamburg |
| 29 | B. Perry & Sons ... ... | ,, | 1,040 | Antwerp |
| | Goole— | | | |
| 25 | Goole Steamship Co. ... | ,, | 210 | Hamburg |
| 28 | ,, ,, ... | ,, | 560 | ,, |
| | Grimsby— | | | |
| 26 | J. Sutcliffe & Son ... ... | ,, | 500 | Antwerp |
| 26 | British Petroleum Co. ... | Lamp | 129,600 | Kustendje |
| | Harwich— | | | |
| 25 | Great Eastern Railway ... | Lub. | 220 | Antwerp |
| 26 | ,, ,, ... | ,, | 400 | ,, |
| 29 | ,, ,, ... | ,, | 400 | ,, |
| | Hull— | | | |
| 26 | T. M. Roberts & Co. ... | ,, | 500 | ,, |
| 26 | W. Gilyott & Co. ... ... | ,, | 400 | New York |
| 26 | T. Wilson, Sons & Co. ... | ,, | 720 | ,, |
| 26 | ,, ,, ... | ,, | 7,640 | ,, |
| 26 | Asiatic Petroleum Co. ... | Benzine | 829,400 | Constanza |
| 27 | W. Gilyott & Co. ... .. | Lub. Gr. | 1,440 | New York |
| 28 | British Petroleum Co. ... | Lamp | 1,141.480 | Kustendje |
| 28 | W. Gilyott & Co. ... ... | Lub. | 2,920 | New York |
| 28 | Wilson's & N. E. Railway ... | ,, | 1,160 | Antwerp |
| 29 | T. Wilson, Sons & Co. ... | ,, | 6,200 | New York |
| | Boston— | | | |
| 26 | W. F. Beaumont ... ... | ,, | 480 | Hamburg |
| | Manchester— | | | |
| 26 | G. B. Taylor... ... ... | Lub. Oil and Gr. | 1,440 | New York |
| 26 | D. Currie & Co. ... ... | Lub. Gr. | 440 | Hamburg |
| 26 | Diamond Lubricating Co. ... | ,, | 2,940 | New York |
| 26 | J. T. Fletcher & Co. .. ... | Lub. | 500 | Antwerp |
| 27 | G. B. Taylor ... ... ... | ,, | 600 | Hamburg |
| 27 | McLiners, Ltd. ... ... | ,, | 5,300 | Philadel. |
| 27 | Anglo-American Oil Co. ... | ,, | 52,540 | ,, |
| 27 | ,, ,, .. | Lub. Gr. | 3,000 | ,, |
| May. | Manchester— | | | |
| 27 | Liverpool Storage Co. ... | Lub. | 39,310 | New York |
| 27 | Crew. Levick & Co. ... ... | ,, | 2,590 | Philadel. |
| 27 | J. T. Fletcher & Co. ... ... | ,, | 600 | Ghent |
| 27 | F. Leyland & Co. ... .. | ,, | 2,000 | N. Orleans |
| 28 | Bramwell. Fern & Co. ... | ,, | 43,320 | Philadel. |
| 28 | F. Schofield & Co. ... ... | ,, | 3,810 | New York |
| 28 | D. Currie & Co. ... ... | Lub. Oil and Gr. | 1.220 | Hamburg |
| 29 | Liverpool Storage Co. ... | Lub. | 7,960 | Philadel. |
| 29 | J. T. Fletcher & Co. ... | ,, | 240 | Ghent |
| 29 | Anglo-American Oil Co. ... | ,, | 131,850 | New York |
| 29 | W. W. Jones, Dooly & Co.... | Lub. Gr. | 1,000 | ,, |
| | Newcastle— | | | |
| 26 | Tyne-Tees Steamship Co. ... | Lub. | 520 | Antwerp |
| 26 | P. H. Matthiessen & Co. .. | ,, | 240 | Bergen |
| | Southampton— | | | |
| 25 | P. E. Curry ... ... ... | ,, | 150 | New York |
| | Swansea— | | | |
| 26 | R. Turpin & Co. ... ... | ,, | 200 | ,, |
| | Dundee— | | | |
| 28 | D. Alexander & Sons .. | ,, | 160 | Hamburg |
| | Glasgow— | | | |
| 26 | Anchor Line ... ... | Lub. Gr. | 1,600 | New York |
| 28 | Clyde Shipping Co. ... ... | Lub. | 3,530 | Antwerp |
| 29 | Maclay & McIntyre Co. ... | ,, | 3,150 | N. Orleans |
| | Grangemouth— | | | |
| 28 | Jas. Currie & Co. ... ... | ,, | 2.000 | Hamburg |
| | Leith— | | | |
| 23 | Jas. Currie & Co. ... ... | ,, | 7,200 | ,, |
| 26 | Jas. Cormack & Co... ... | ,, | 2,000 | Riga |
| 28 | Jas. Currie & Co. ... ... | ,, | 1,200 | Hamburg |
| 28 | G. Gibson & Co. ... ... | ,, | 1,000 | Antwerp |
| | Dublin— | | | |
| 25 | P. Murphy & Co. ... .. | ,, | 100 | Hamburg |
| | Aberdeen— | | | |
| 26 | R. C. Reid & Co. ... ... | Lub. Oil and Gr. | 600 | ,, |
| | | | 8,159,860 | |
| | Deduct— | | | |
| | Hull— | | | |
| 25 | W. Brown, Atkinson & Co. | Lamp | 1,271,000 | Kustendje |
| | Sunderland— | | | |
| 31/4 | British Petroleum Co. ... | ,, | 7,330 | N. Orleans |
| | Swansea— | | | |
| 15 | Burgess & Co. ... ... | Lub. | 810 | Hamburg |
| | London— | | | |
| 18/4 | Port Authority ... ... | ,, | 1,050 | New York |

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# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

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## Editorial Notes.

**The Government and its Oil Fuel Agreement.**

IN spite of the fact that Parliament has only re-assembled during the present week after the Whitsuntide recess, there is ample evidence to show that the proposed agreement of the Anglo-Persian Oil Company with the Government is not viewed with anything approaching a friendly feeling even by the latter's usual supporters. The plain fact has already been brought home that "someone has blundered." A mistake of far-reaching importance has been made, and though we understand that there will be an attempt to push the matter through at the earliest possible moment, there is a lurking fear that the opposition to the proposal will be so strong as to cause a postponement of the matter until a close investigation has been made of the circumstances which have led up to the signing of the agreement. It is no exaggeration to say that the oil trade generally are openly antagonistic to the measure, which in practice must mean that the Government will take an active part in the distribution of petroleum products. Had there been any justification—however slight—for such Government interference the matter would have been viewed in a different light, but in the present circumstances the obvious and only conclusion which one can arrive at is that there has been some carefully guarded influence at work in order to pull the Government's leg to the extent of sinking £2,200,000 of public moneys in a company which, at the moment, cannot boast of the solid nature of its finance.

◆

**The Maikop Pipeline and Transport Company.**

THE report of the Maikop Pipeline and Transport Company, Ltd., for the past year's operations, which will be found in another part of the present issue, may on the whole be considered satisfactory. Closely allied as the company is to the Maikop field, deriving a large portion of its revenue from the transport of crude oil, it naturally follows that any diminution in the field's production is bound to have its effect upon the Pipeline and Transport Company. An instance of this fact is brought home in the present report, for while the total quantity of oil received for pumping during the year amounted to just over 4,000,000 poods, this is only about one-half the amount of oil received for the previous year. Fortunately, however, the Company has extensive interests in the Krimskaya field, and its new pipeline there is now in full operation, and consequent upon the successful results that are shortly expected in new wells in the Krimskaya region, the company will be appreciably benefited. But there is no reason why its future in the Maikop field should be held in doubt. Of late the crude oil output in Maikop has taken a decidedly upward turn, and more wells are being added to the list of producers, which must of necessity be greatly to the advantage of the Pipeline Company. Then, too, it is in a position to undertake the supply of water to the various properties in Maikop —a policy which is now suggested—for with the facilities which the company possesses, this adjunct to its ordinary business can be most profitably operated. In the face of circumstances over which the directors could have no control, they have made a brave showing, upon which they deserve to be congratulated most cordially. They are gradually getting the company into a very sound position, and the fact that they have redeemed debentures during the past year to the extent of £40,000 tells eloquently of their desires to make the Maikop Pipeline and Transport Company a permanent success.

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**Bad Luck for the Spies Company.**

THE breaking-in of water in the well of the Spies Petroleum Company on the South Baskakoff plot, though materially affecting the company's output of crude oil for the time being, must not be taken to heart too seriously by the shareholders, for within a few weeks the new wells, which will be then at their producing stage, will more than compensate for the diminution now noticeable in the weekly returns. A cut of nearly twenty-five per cent. in a company's production of oil is obviously a matter of a somewhat serious nature, yet in the present case there is sufficient evidence to justify the hope that the present trouble will soon be overcome. It is not the first time the company has had trouble with watered wells, and though in the present case we are not going to assume that the water-bearing strata are not effectively shut off, there is no doubt that the water question is one which no operating company, especially in the Grosny fields, can afford to under-estimate in its importance. Inasmuch as the Spies Company's well is only inundated with the upper waters, comparatively little trouble may be anticipated; the unfortunate occurrence means but a regrettable delay, and, of course, a few weeks of diminished output.

**More Interesting Oil-Tanker Launches.**

For the first time in the history of ocean oil transport, two 15,000 oil-tankers have been launched in one week for the same owners. The nearest approach to this record was in the second week in February last, when, for the same owners—the Eagle Oil Transport Company, Ltd.—two of their smaller oil-tankers were launched on consecutive days, and two of the larger vessels had their trial trips—both records being events of which any company might feel justly proud. With the launching of the two gigantic oil-tankers during the present week, nineteen of the fleet of twenty oil-tankers for the Mexican oil trade are in the water, the remaining tanker—the "San Patrico"—being due to be launched toward the end of the present year. Thus in the short space of something over two years, a fleet will have been constructed which possesses a total capacity of nearly one-quarter of a million tons of petroleum products, and which is destined to transport the products of Mexican oil to all parts of the world.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

Russian Petroleum Company, Ltd.—The production for the week ended June 6th was 102,000 poods.

Spies Petroleum Company, Ltd. — The production for week ended June 7th was 223,375 poods, or about 3,603 tons. The total production for the year from January 14th to June 7th was 5,829,360 poods, or about 94,022 tons. The total production for the corresponding period last year was 6,114,130 poods, or about 98,615 tons. Price of crude oil at Baku is now 37½ copecs per pood.

Maikop Victory Oil Company, Ltd. — The production of crude oil for week ended June 6th was 23,667 poods, or 382 tons.

European Oilfields Corporation, Ltd. — The production for the week ended June 7th was 108,000 poods.

Baku Russian Petroleum Company, Ltd.—The production for the week ended June 3rd was 115,000 poods.

Black Sea Oil Fields, Ltd.—The production of this company for the week ended June 6th was 19,556 poods (315 tons).

Maikop New Producers, Ltd.—Production for week ended June 6th was 8,110 poods (131 tons).

British Maikop Oil Company, Ltd.—Production for week ended June 7th was 11,400 poods, or 184 tons.

Bibi-Eibat Oil Company, Ltd.—Production for week ended June 7th, 89,533 poods, or 1,444 tons.

New Schibaieff Petroleum Company, Ltd.—Gross production for week ended June 6th, 97,970 poods, or 1,580 tons.

North Caucasian Oil Fields, Ltd.—The total production for week ended June 9th was 307,913 poods, or 4,966 tons. Corresponding period last year, 2,032 tons.

Maikop Midland.—Production at Krimskaya for week ended June 6th was 4,300 poods, or 69 tons.

Maikop Premier Oil Syndicate, Ltd.—The production for the week ended June 6th was 18,302 poods (295 tons).

Levanovskoe Petroleum Company, Ltd.—Production of crude oil for week ended June 6th was 1,720 poods, or 28 tons.

Ural Caspian Oil Corporation, Ltd.—Production for the week ended June 9th, 155,300 poods, or 2,505 tons.

Cheleken Oilfields, Ltd. — Production for the fortnight ended June 6th, 1,689 tons.

DR. T. O. BOSWORTH,

D.Sc. (London), M.A. (Cambridge), F.G.S.

*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*

**Consulting Geologist.**

*(Formerly of His Majesty's Geological Survey.)*

Office: 12, St. Giles Street,
Northampton.

# The British Government and the Petroleum Industry.

## TRADE PROTEST AGAINST THE ANGLO-PERSIAN AGREEMENT.

On Tuesday afternoon at Winchester House, London, E.C., a meeting of members of the oil trade and gentlemen interested in the petroleum industry was held for the purpose of protesting against the proposed Government agreement with the Anglo-Persian Oil Company, Ltd., which calls for the investment of £2,200,000 of public moneys in the Persian oilfields.

Dr. Paul Dvorkovitz took the chair, and in opening the meeting stated that though the attendance was perhaps not so large as might have been desired, he was pleased to say that he had the full support of many of the largest concerns associated with the industry, all of whom looked with dismay upon the Anglo-Persian agreement. That meeting, Dr. Dvorkovitz continued, had been called by him at the request of several of his riends who wished a protest to go forth showing that he industry and the oil trade generally objected to the policy of the Government in that respect.

The subject which had brought them together was the agreement which had been entered into by the Admiralty with the Anglo-Persian Oil Company, which involved ubsidising that company to the extent of £2,200,000. The oil trade would not object at all to the grant of national money if they saw there was any justification or supporting it. But on that point the First Lord of he Admiralty had, in his speech before Parliament on March 17th, 1914, stated that there was no difficulty whatever in obtaining oil, but the difficulty was to get it at a good price. Those interested in the industry, herefore, had to look at the matter from a different point of view; they had to look at it purely and simply rom the question of price. He would prove, however, hat under the arrangement which had been made with he Anglo-Persian Company the fuel supplied to the Government by that company would not be at a good rice. If they carefully studied the Blue Book dealing with the subject they would find that according to the Admiralty's own committee they showed that the total uantity of crude oil it was possible to transport at the resent time by the existing pipeline, which was 150 miles in length, was about 240,000 tons per annum. Thirty per cent. of that quantity before it could be sed by the Admiralty had to be removed, leaving only bout 170,000 tons of liquid fuel available for Admiralty urposes.

He would ask anyone who would read Mr. Churchill's statements as to there being no difficulty in obtaining oil fuel for the requirements of the Government, whether it was a policy which was good for the country or economically sound to sink over two million pounds sterling in rder to secure a supply of 170,000 tons of oil fuel, and hat in a country where there was no security owing to revolutionary movements, etc., of keeping up that ecessary output. Was the Government embarking pon a policy which would commend itself to any hinking person?

The Anglo-Persian Oil Company had an issued capital of £1,000,000 preference shares and £1,000,000 ordinary shares, and in addition, they had issued £600,000 debentures. Then the company had to pay a 16 per cent. royalty to the Persian Government, 12 per cent. of the profits had to go to the Persian proprietors, and another 2 per cent. to another company, so that if they took all those facts into consideration they would find that on the basis of a production of 240,000 tons of crude oil per annum, there would be no profit left for the ordinary shares, in which the British Government were interested by their investment of £2,200,000. It meant in reality that the British Government was giving a bonus say at 4 per cent. of something like £80,000 per annum to the Anglo-Persian Oil Company. That company, it was well-known, had spent all its money; it had spent £380,000 originally, and since then it had spent £1,000,000 which had been subscribed by the public, in addition to £600,000 in the form of debentures, while in addition it had a loan from the Burmah Oil Company of £150,000.

And what had they done with it? They had built a pipeline 150 miles long, they had ten wells and a refinery, but they had absolutely no money in order to continue work on the fields. Therefore, to pay a bonus of £80,000 per annum to a company which was penniless in order to secure 170,000 tons of liquid fuel per annum, was, in his opinion, a most extraordinary proceeding, for it meant that instead of the Admiralty getting their liquid fuel at a good price, they would get it at a very bad one, for they would have to pay much more than if they secured it from other sources, and in the ordinary way of trade.

But there was another aspect which threatened the trade in connection with the Government's policy. In the debate in Committee of the House of Commons on the Navy Estimates last July, Mr. Churchill said :—

> "When the new field is developed, and those who are producing it have exhausted their original capital, and have not yet opened up new lines of consumption and customers, there are opportunities of purchasing large quantities of oil, if the means of storage and transport are available, at prices which bear no relation to what that same oil will afterwards be sold at when the field is firmly established, and when its customers and markets are clearly marked out. This second aspect of our ultimate policy involves the Admiralty being able to retort, refine, top—top means driving lighter products off by evaporation—or distil crude oil of various kinds until it reaches the quality required for naval use. This again leads us into having to dispose of the surplus products—another great problem—but I do not myself see any reason why we should shrink, if necessary, from entering this field of State enterprise."

There was no doubt that the policy which Mr. Churchill there outlined was not only most dangerous to the petroleum industry as a whole, but also to the State. They knew that the refining industry was a most complicated one, especially from the point of view of transport and distribution. At the present time something between three hundred and four hundred million pounds sterling was invested all over the world in companies and organisations for the transport and distribution of the products received from crude oil, and therefore for the State to embark upon complicated arrangements for the distribution of petrol, kerosene, solar oil, and lubricants in order to secure 170,000 tons of liquid fuel per annum was the most dangerous proceeding which could be imagined.

The Russian Government, which was all-powerful and possessed an enormous area of oilfields, was a very large consumer of liquid fuel, consuming yearly far more than the British Navy would ever do. The Russian Government consumed more than 4,000,000 tons of liquid fuel per annum for its railways, yet despite the fact that they were such large consumers of oil fuel, they had never attempted either to develop their oilfields themselves or turn themselves into petroleum refiners. The Russian Government was not afraid of public opinion; they only sought for that which was suitable for themselves, but knew that any attempts on their part to directly enter the petroleum industry would lead to great disaster. If the Russian Government had entered the industry, the result would be a general upsetting of that industry with the consequence that the Government would have to pay more for its oil fuel than at present.

Those who had followed events closely in the petroleum industry, knew that the American Government had been fighting the Standard Oil Company for years in an endeavour to prevent their building pipelines, etc., for the transport of the crude oil, and the effect of the American Government's attitude was seen to-day in Oklahoma, where the production of crude oil was cut down to about one-half owing to there not being sufficient transport or storage facilities.

Then if they looked to Germany, they saw that the German Government had for the past two years been appointing committees for the purpose of introducing a monopoly in regard to refined oil in Germany, and yet in spite of the great support they had received, they had been forced to the conclusion that such a monopoly would have no good results, inasmuch as it would be the consumer who would ultimately have to pay much more than he paid at the present time.

They, in England, had an enormous industry which had been built up and gradually extended during the past quarter of a century to its present important proportions. A great impetus, however, had been given to it during the past four or five years, owing to the announcement that the Admiralty had decided to introduce liquid fuel into the Navy. The impetus given to the formation of new petroleum enterprises had been remarkable, and he had no doubt they would all remember that the majority of prospectuses which were issued some four or five years ago were all based on the assumption that the Admiralty had gone in for liquid fuel and would require large quantities for its own purposes. As a result the investor had gladly supplied his money for the developing of new oilfields. A great many companies had been created for the purpose of developing the oilfields in the British Empire—in Australia, New Zealand, Egypt, Trinidad, Canada, etc. Now, if the Government was going to support one company only, and a company which was not in the British Empire, but in Persia, where there was always some danger of revolution, a great injustice would be done to the existing companies which had devoted their capital, time, and energy in an endeavour to find commercial quantities of oil in the British Empire.

On July 17th last year Mr. Churchill stated that: "On no one quality, on no one process, on no one country, on no one company, on no one route, and on no one oilfield must they be dependent," yet having pronounced that principle, a policy was laid down which made the country absolutely dependent upon one oilfield by giving a subsidy of £2,200,000 sterling to one company.

That meant that Mr. Churchill wished to rely upon one field, for those other companies who did not receive a subsidy from the Government were prevented developing their fields to the fullest extent. Now why was it that in regard to oil fuel a new principle had been introduced by the Government? They knew that coal was at present used by the Admiralty to a very large extent and always would be so. Yet the Admiralty had never applied to coal the same principle that they now wished to adopt in regard to oil. He personally believed that the attitude of the Government in regard to its subsidy in Persia was chiefly due to the continuance of that favouritism which had all along been shown to the Burmah Oil Company in India. They all knew that the Anglo-Persian Company had been floated by the Burmah Oil Company, who had paid the first purchase consideration to Mr. D'Arcy. The Burmah Oil Company then got £1,000,000 in ordinary shares for it, and they guaranteed the payment of a dividend on the preference shares, while at a later date they made it a loan of £150,000. They evidently now decided they could not nurse the Anglo-Persian Company any longer, and so they found the Admiralty to come forward and support the enterprise.

Dr. Dvorkovitz proceeded to say that he thought it was most unfair to the petroleum industry that such support should be given to one company. He did not object to the support which the Burmah Company had received in India. In addition to the preferential rights it had in choosing the best part of the oilfields they managed to get the support of a bounty of 1½d. per gallon for all refined oil, and thus the Indian consumer paid something like £800,000 per annum, of which the Burmah Oil Company received the benefit. In Russia, the Government gave its support to the petroleum industry by means of a protection, and the consumer had naturally to pay the enhanced price, and he foresaw a great danger with regard to the relations between Russia and England in Persia in the division of the sphere of activity. Because they knew that up to the present moment Russia had supplied most of the refined oil which was necessary for consumption in Persia. Inasmuch therefore as the Anglo-Persian Company had the support of the British Government, it was bound to come into competition with Russia, and from that point of view he could not but regard the proposed agreement as a decidedly dangerous proceeding.

There was already wide discontent engendered in regard to this aspect of the question, and he was pleased to notice in the *Manchester Guardian* that the subject had been strongly taken up as to the undesirability of competition with Russia in Persia, with which country England now worked so harmoniously.

The Anglo-Persian agreement was not a political party question. It was a matter of the deepest concern to the nation at large, and he maintained that on the Admiralty Committee's own showing it was possible to obtain plenty of liquid fuel without sinking public moneys in the Persian fields. In every respect it was a bad bargain. During the past few years the production of liquid fuel had grown enormously, and to-day almost unlimited quantities of oil fuel could be purchased. They knew that Mexico alone was able to provide any amount of liquid fuel. And even the Russian Government had purchased 30,000 tons of oil fuel for their railways, while to-day negotiations were proceeding for additional quantities. Then they have the Egyptian fields, where one well alone was capable of supplying all the fuel necessary for the Admiralty, and that, situated in a country under British jurisdiction, and on the chief ocean highway of the world, while in Trinidad the production was increasing as fast as transport facilities would allow.

Those facts showed that there was plenty of fuel oil available for all requirements, and yet in the face of those facts, the British Government was deciding to favour one company, operating in a foreign field, against all others. He, therefore, felt that it was their bounden duty to protest, and that in as emphatic a way as possible. If it were possible for the Government to obtain only 170,000 tons of liquid fuel per annum from Persia, then the Government had without doubt made a very bad bargain, but if, on the other hand, the Anglo-Persian Company would have sufficient money to build another pipeline of, say, 12 in. diameter, and thus considerably increase the amount of crude oil refined, the bargain which the Government made would be even worse, for it would mean that the Government itself would have to find an outlet for the 30 per cent. of light products taken from the crude oil, and would thus come in open competition, not only with the large operating companies, such as the Standard Oil Company, the "Shell" Company, and Lord Cowdray's interests (which, of course, were sufficiently strong to compete with the Government), but also with the small people, in which he included some two hundred oil brokers, whose position would be absolutely hopeless.

There was no denying the fact that this unfair competition would follow the adoption of the Government's policy in Persia, and his friends and himself thought this aspect of the question should not be lost sight of.

Dr. Dvorkovitz concluded by moving the following resolution :—" That this meeting of members of the oil trade enters its emphatic protest against the contemplated action of His Majesty's Government in subsidising enterprise in Persia for the production of liquid fuel for Admiralty requirements, being of opinion that such action will, in practice, not attain the desired end, but at the same time will do immense injury to the petroleum industry, by preventing the active development of promising oil regions under the British flag," adding that he had no personal interests in the subject, except that of seeing that the oilfields of the world were developed to their fullest extent.

Mr. G. W. Mancell seconded the resolution, which was carried, only four persons voting against.

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On Thursday in the House of Commons Mr. Gretton (U., Rutland), asked the First Lord of the Admiralty if he would say when it was intended to take the discussion upon the proposed investment on behalf of the Admiralty in shares of the Anglo-Persian Oil Company.

Mr. Churchill : No, sir ; but the question should be addressed to the Prime Minister.

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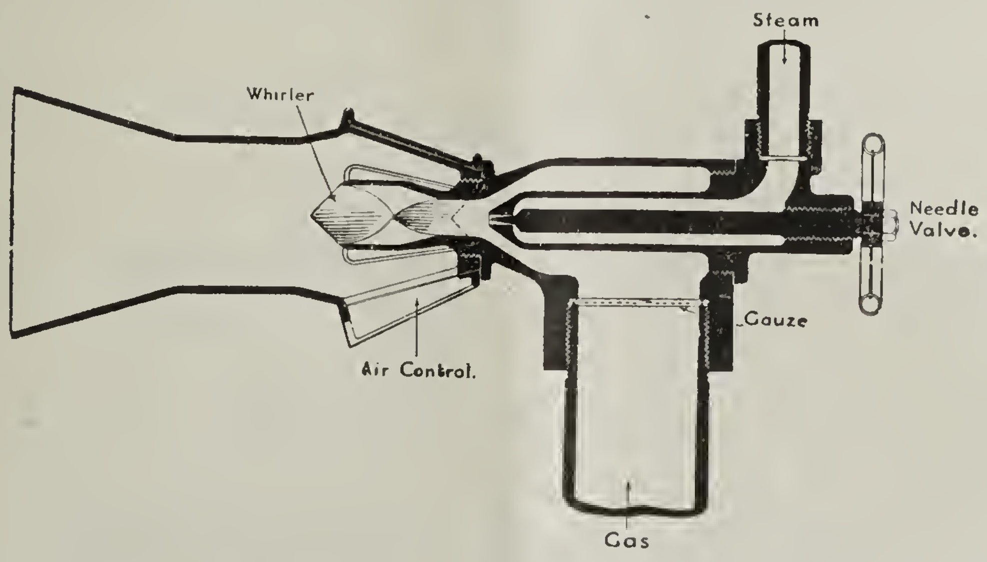

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## LAUNCH OF THE "ABELIA."

As was briefly announced in our last issue, there was launched from the Walker Shipyard of Messrs. Sir W. G. Armstrong, Whitworth & Co., Ltd , on Friday of last week, a steel twin-screw steamer, built to the order of the "Flower" Motor Ship Company, Ltd., of which Messrs. M. Samuel & Co., of London, are the managers. The chief dimensions of the vessel are:— Length, overall, 362 ft.; breadth, extreme, 47 ft. 3 in.; depth, moulded, 27 ft. The vessel has been built on the Isherwood system to Lloyd's rules for their highest class under special survey. The captain and officers' accommodation is in the bridge, the engineers' in the poop, and the seamen's in the forecastle. The propelling machinery has been manufactured by the Wallsend Slipway and Engineering Company, Ltd., and is placed in the after part of the vessel. It consists of two sets of four-cylinder single-acting two-cycle Diesel engines, each driving its own shaft, and is designed to propel the vessel at a speed of about 10 knots. The auxiliary machinery is steam-driven and is supplied by two vertical donkey boilers 6 ft. 6 in. diameter by 15 ft. 6 in. high, fitted with liquid fuel appliances on the Wallsend-Howden system. The vessel has been built under the supervision of Messrs. Flannery, Baggallay & Johnson, of London. On leaving the ways the vessel was gracefully named "Abelia" by Mrs. Andrew Donie. Amongst those present at the launch were: Mr. and Mrs. Donie, Colonel R. Saxton White, Mr. Edwin L. Orde, Mr. J. D. Crohan, Mr. D. R. MacDonald, and Mr. A. Gulston.

## Serious Strike on the Baku Fields.

### All Companies Affected. A Gloomy Outlook.

The Baku oilfields is in the throes of another workers' strike, and practically all work is at a standstill. The notice—which was the forerunner of the strike—was issued on Wednesday at noon, and signed by a self-constituted "strike committee" acting under the auspices of the local Socialist organisations, and although issued ostensibly on behalf of the workmen, in many cases the men themselves knew nothing of the demands until they saw them in print.

The notice intimated that work would stop the following day—Thursday—and in accordance with this, all workers left the fields, without any suggestion of negotiations with the managers of the companies.

The men have presented a list of over fifty demands, including gratuities (bonuses), quarters-money, an eight-hour day, forty-two hours' continuous rest weekly, complete discontinuance of overtime and piece-work, one month's holiday every year with full pay, men leaving on their own accord to receive a month's wages, annual increase of ten per cent. to all employees, no employees to be discharged without the consent of the men's committee, all vacancies to be filled with union men, full wages to be paid during strikes, free admission to places of amusement, climatic resorts for workmen, health-resort colonies for children, immediate erection of workmen's villages, tramways on the oilfields and to the town, free tuition and free requisites for workmen's children, etc.

Obviously the demands are of a grossly absurd nature, and many of them are absolutely impossible.

It is generally felt that the strike will be a long one, and will naturally do incalculable harm to the Baku industry. Last (Friday) evening a Review representative interviewed several gentlemen prominently associated with the Baku industry, and learned that the most gloomy outlook is taken of the whole matter.

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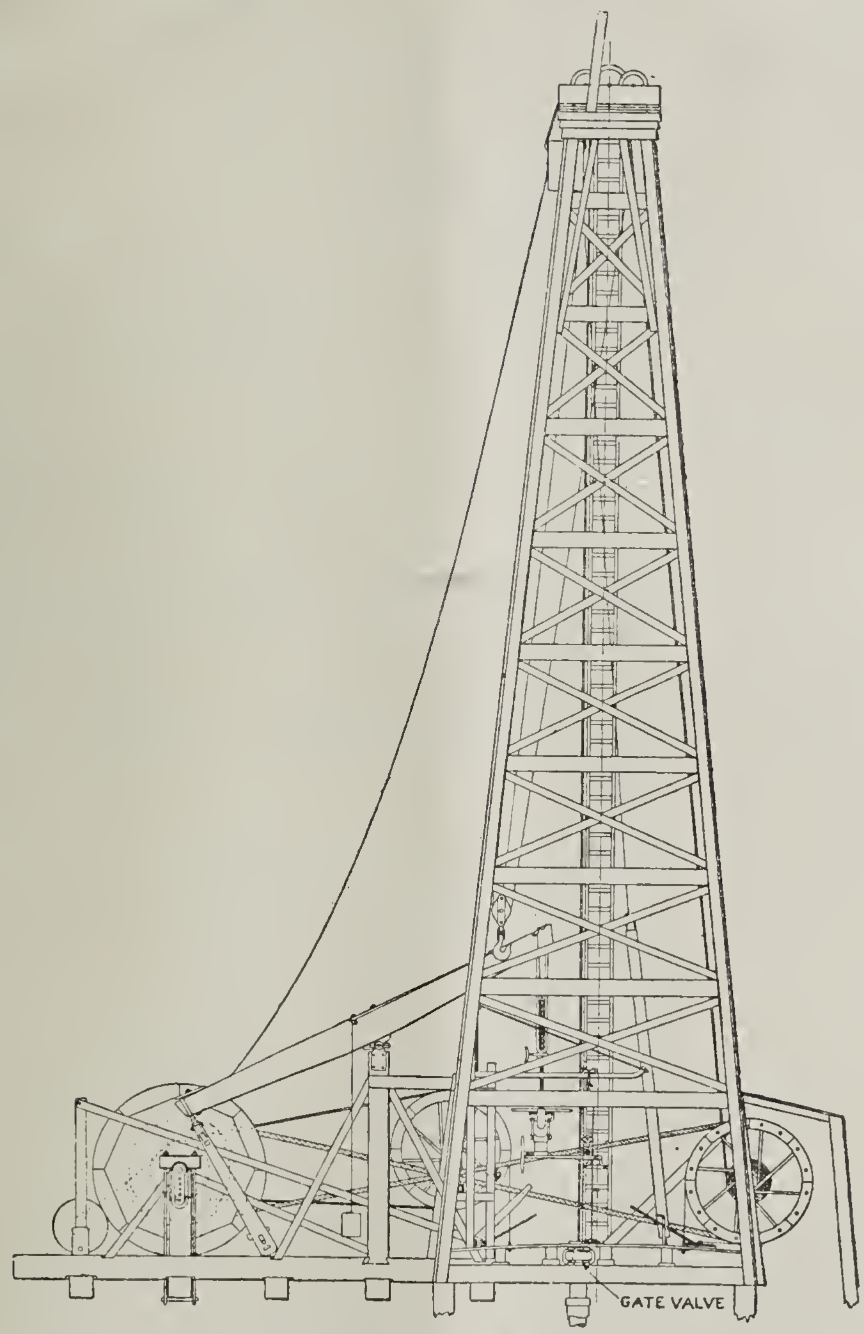
# MUD-LADEN FLUID APPLIED TO WELL DRILLING.

By Messrs. **J. A. POLLARD** and **A. G. HEGGEM.**

The Washington Bureau of Mines is investigating the technology of petroleum and its products, the investigation including well-drilling methods and the transportation, treatment, and utilisation of petroleum and natural gas, with especial reference to prevention of waste and increased efficiency in the development of oil and gas resources in land belonging to or controlled by the Government.

One of the greatest wastes of natural gas is that which often takes place in drilling oil wells. If a well is being drilled by one of the usual methods, the gas becomes a hindrance to drilling, and the driller regards it as a nuisance; or the gas may be found in a field where it has little or no immediate commercial value, and hence is allowed to escape into the air without restraint. For preventing this waste the usual dry-hole methods of drilling are unsuitable, and it is the purpose of this paper to outline a method whereby wells may be drilled and the oil recovered without waste of gas.



An Oklahoma cable rig, with calf wheel.

When an open hole is bored into a bed containing gas under pressure, the gas flows toward the hole because of the reduction of pressure at the hole. The movement of gas is therefore always from a greater to a lesser pressure. If some means be provided for keeping the pressure within the well greater than the pressure in the gas sand, there will be no flow of gas into the well. The requisite pressure may be obtained by a column of water in the well, provided the gas pressure be not greater than that of the water when the well is full. However, the use of clear water is sometimes impracticable and is always undesirable. The action of clear water on the walls of the well causes caving, and an attempt to use clear water in drilling the well invites trouble and may injure the producing sands. By mixing clay with the water the results obtained are entirely different, and this paper deals with the use of a mud-laden fluid as applied to the dry-hole method of drilling with a cable rig, one type of which is shown in the illustration on this page.

The use of clay-laden water, while not new in well drilling, having been used with rotary rigs for years and employed in 1901 for drilling the first successful oil well in the Beaumont (Tex.) field, was not applied previous to 1913 in drilling by the dry-hole method with a cable rig. Already the advantages of the method have been demonstrated, and there can be no question as to its efficiency when properly used. Too much emphasis cannot be placed upon the importance of using it where gas and water are encountered, for it not only greatly reduces the danger to workmen, but effects a great saving in the amount of casing needed and entirely eliminates the waste of gas while drilling is in progress.

In the Mid-continent field alone during the past year there have been a large number of deaths and serious accidents from blowouts of gas from wells being drilled. These accidents and the great hazard from fire risk, to say nothing of the great waste of gas, cannot happen if the mud-laden fluid method be properly used.

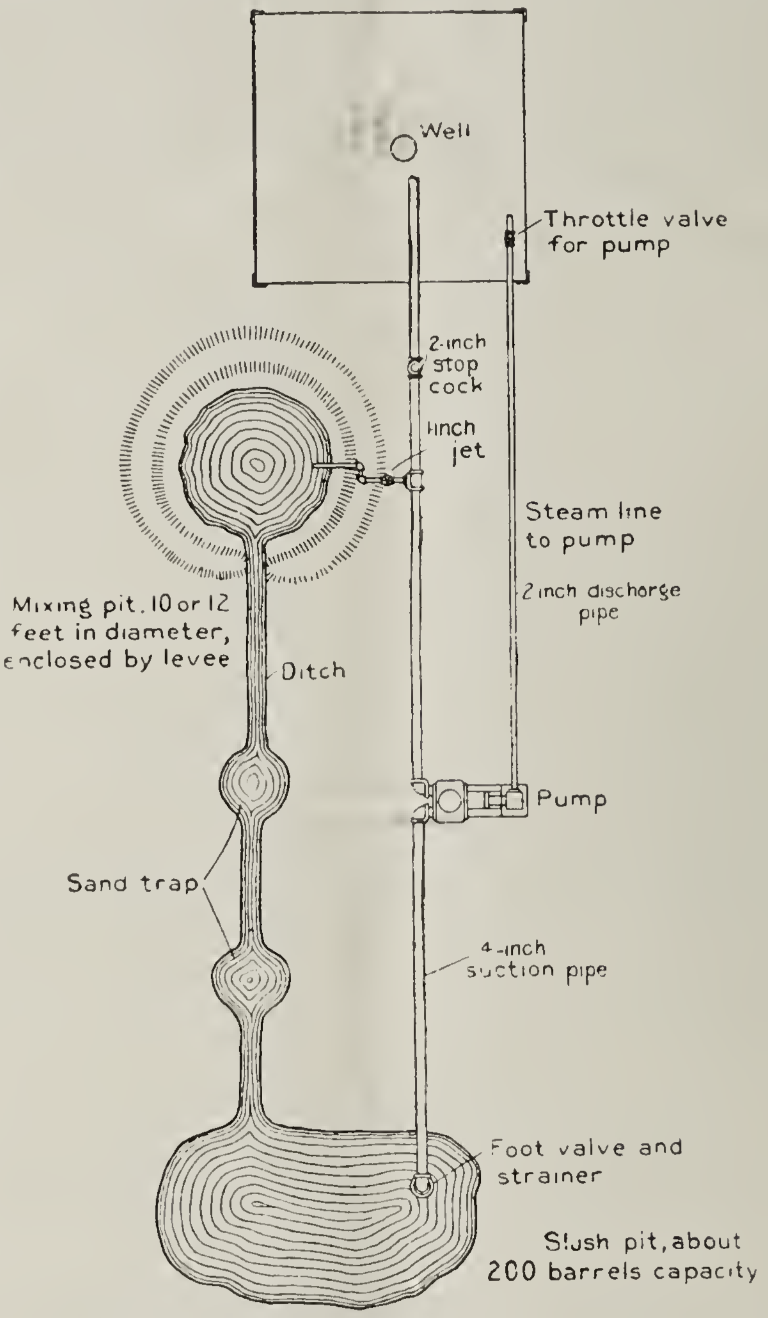
In one small field as much as 100,000,000 to 150,000,000 cubic feet of gas a day has been wasted in the effort to obtain oil. Such great waste is believed to be altogether unnecessary, for the preventive methods that are described in this paper have been shown to be entirely practicable. Aside from increasing safety and preventing waste, the methods offer a further advantage in that they absolutely prevent the contents of one bed mingling with those of another; thus water cannot enter the pay sands, neither can oil or salt water contaminate the fresh water of other beds.

In this paper the term "mud-laden fluid" is applied to a mixture of water with any clay which will remain suspended in water for a considerable time. The fine, sticky clays that in many places are termed "gumbo" are well suited for this purpose.

Some oil workers have thought that "mud-laden fluid" implies the use of any of the drillings from the well; but this is not the case, for if any coarse material in the drillings (such as sand) is used, it will settle in the well and prevent the bit from striking the bottom of the hole. The proportion of clay that should be mixed with water to insure the best results is about 20 per cent. by weight. With this proportion of clay in the water it is impossible for the driller, no matter how experienced he may be, to tell whether there is any clay at all in the hole, for the tools work about the same as they would if the hole were filled with clear water. An excellent idea of the consistency required can be obtained by comparing the action of a stream of sand pumpings, or muddy water, running in a ditch with that of clear water. The sand pumpings contain fine material that is deposited on the walls, and especially the bottom of the ditch, where it forms an ever-thickening protective coating; clear water, on the other hand, cuts away the sides and bottom of the ditch and may cause it to cave. Between clear water and water containing more mud than can be held in suspension by the current, it is possible to find a mixture of clay and water that will deposit part of the clay as a fine protective coating, while the rest of the clay remains in suspension and passes through the ditch.

The action of the mud-laden fluid on gas rock or gas sands or other porous formations can be likened to the action of muddy water going through a filter. In any filter that has been used for some time it will be found that most of the sediment from the water has been deposited on the surface of the filter, but some of it has entered the filter, the proportion diminishing with the distance penetrated.

The distance to which clay from the fluid in a well will penetrate a porous formation depends on the excess of pressure produced by the column of fluid or by the pump, and also on the porosity of the formation, but finally no more water will go through.



Arrangement for handling mud-laden fluid.

Some drillers contend that clear water should have the same effect as the mud-laden fluid, but the results of trials have shown that it does not. Many wells cannot be filled with clear water, because the water continues to flow into the rock or sand without any clogging effect, and in consequence does not rise high enough in the well to give a pressure sufficient to overcome that of the gas. Drillers have attempted this method, using clear water, and have permanently drowned out a gas sand. Further than this, clear water causes the walls of the well to slack and cave and "freeze" the pipe.

The action of the muddy water is entirely dissimilar. The fluid enters the porous stratum for a short distance, and deposits clay that clogs the openings and finally prevents the further inflow of fluid.

Should it be desired at any time to recover the gas from a porous bed that has been clogged, all that is necessary is to bail down the fluid in the well until the pressure of the remaining fluid is less than the gas pressure. The fluid will then be forced out of the well by the superior gas pressure, and the gas sand will be thoroughly cleaned of all mud. By using this method the operator can seal or unseal at will a gas-bearing formation.

In order to save time in preparing the clay and water mixture for a well it is recommended that a slush pit, about 15 or 20 ft. long, 10 ft. wide, and 3 ft. deep, be dug close to the derrick (see illustration on this page). The place for this pit does not matter much, except that it should be on the lowest side of the derrick, so that when the well is bailed the fluid will run into the pit without trouble. When a well is being drilled through beds of clay the drillings from these beds can be turned into the pit as they come from the well and thus be saved and kept from becoming mixed with sand and shale drillings. Care should be taken not to mix with this fluid any material that will not stay in suspension. Not more than half a day's labour is necessary to prepare the fluid for the well, and the work can be done by ordinary unskilled labourers.

The pump recommended for use in handling the mixture of mud and water is known in the oil business as a "duplex slush pump," fitted with removable liners and rubber valves. These pumps may be obtained in many sizes, some of them weighing about 4,000 pounds. Such heavy pumps are costly and are expensive to move from one well to another; consequently the old-style 8 in. by 5 in. by 10 in. pump, which weighs less than 2,000 pounds, seems best adapted for this work.

(*To be continued.*)

◆

**The Aquila Franco-Romana.**—This company has entered into an agreement with the Continental Deep Boring Company for the boring of two wells to a total depth of 1,100 metres.

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/6-24/6 |
| 5% Debentures ... ... | 600,000 | £100 | 99-104 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{11}{16}$-$\frac{13}{16}$ |
| Baku Russian Petroleum Co. | 711,370 | 10/- | 4/0-4/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 4/6-5/6 |
| European Oilfields ... ... | 319,181 | 10/- | 5/6-6/6 |
| Lobitos Oilfields, Ltd. ... | 400,000 | £1 | 28/9-29/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 40/3-41/3 |
| Oilfields Finance Corp., Ltd. | 370,010 | £1 | $\frac{13}{16}$-$\frac{15}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 26/0-27/0 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | $1\frac{1}{16}$-$1\frac{3}{16}$ |
| " " Ord... | 690,000 | fully pd. | 11/0-12/0 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4,047,610 | £1 | $5\frac{3}{16}$-$5\frac{1}{4}$ |
| Pref. | 2,000,000 | £10 | $10\frac{7}{16}$-$10\frac{11}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 18/9-19/3 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 615 | 617 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 226 | 228 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,200 | 18,300 |
| Nobel Bros. (Issue 1912)... ... ... | 250 | 900 | 905 |
| Russian Naphtha Society ... ... | 100 | 169 | 171 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 172 | 173 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. Maclean & Henderson, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 22/6 |
| " 6% Cum. Pref. | 100,000 | £10 | £$11\frac{1}{16}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 90/0 |
| " Pref. ... ... ... | 250,000 | £1 | $27/10\frac{1}{2}$ |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/6 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 39/6 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 28/6 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 3/6 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) .. | 110,500 | 17/- | 74/6 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 27/0 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 13/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 39/0 |
| " "B" Deb. ... | 160,000 | £100 | £140 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# RUSSIAN NOTES.

**Petroleum Boom at Grosny.**—The petroleum boom at Grosny, instead of abating, is developing. Everyone is speculating in petroliferous plots.

**The Caucasian Technical School.**—On the 17th of May the laying of the foundation stone for the Caucasian High Technical School took place at Tiflis.

**Navigation on the Caspian Sea.**—The Ministry of Ways of Communication has granted to the Kavkas and Mercury Steamship Company the privilege of establishing regular navigation on the Caspian Sea during the next fifteen years.

**Exploration for Petroleum in the Elisavetpol Province.**—Explorations for petroleum in the locality Boz-Eri in the Elisavetpol province are now proceeding. Geological investigations carried on during the last year have given quite favourable results.

**Leases of State Plots for Hand-dug Production.**—Auctions for plots to be exploited for hand-dug production in the Baku and Daghestan provinces took place last month. Most of the plots have been taken by former leasors on the same conditions as before.

**Deficiency in the Railway Transports in the Terski Province.**—The Council of the siezd of the Terski petroleum producers has addressed the Ministry of Ways of Communication with a complaint as to the deficiency in the means of transport of residuals to Petrovsk

**Auction Leases of Plots in the Baku Province.**—The Mining Department has informed the Caucasian mining administration that the auctions for plots in the Baku district are fixed for the 7th of June next. A special delegation of the Ministry has been appointed in order to supervise the auctions.

**Water in Wells.**—The technical Baku committee is paying attention to the inundation of petroliferous strata with water, and has appointed a special committee in order to investigate the question and collect all necessary material. The committee has elaborated an enquiry list, copies of which have been sent to persons interested in the petroleum industry.

# ROUMANIAN NOTES.

**Production of Astra-Romana during May.**—The production of this company during May amounted to 44,577 tons, of which 36,610 tons were obtained at Stavropoleos.

**The Romana-Americana.**—The production of this company during the past week averaged 1,010 tons a day, of which 980 tons were obtained at Moreni.

**Prices.**—Prices of crude oil are unchanged. Notwithstanding a good production, crude oil is in great demand. Prices of products on the interior market are stationary. Crude oil is being sold at the price established by the Ministry.

**Astra-Romana.**—The production of this company for the past week averaged 2,026 tons a day. of which 1,756 tons were obtained at Stavropoleos, 171 tons at Bana, 50 tons at Campina, 42 tons at Filipeshti, and the remainder on the other fields.

**Roumanian-German Tariff Conference.**—A conference has taken place at Bucarest in order to discuss all questions connected with the tariffs for the transport of petroleum and petroleum products on Roumanian and German railways.

**Balance Sheet of the Astra-Romana.**—The balance sheet of this company shows a net profit for the past year of 13,537,040 francs as against 8 102,825 francs during the preceding year. A dividend of 10 per cent. has been declared, and a sum of 7,149,046 francs has been transferred to the amortisation fund.

**Production.**—The general production continues to be maintained at a good level, specially owing to the well No. 37 of the Astra-Romana at Moreni, which justifies the reputation of this district as being exceedingly wealthy in oil. The well, which entered into eruption with 500-600 tons a day, has now increased its yield to 750-800 tons daily.

**Steaua-Romana.**—The daily production of this company during the past week averaged 1,000 tons a day. Well No. 231 at Chiciura has been in eruption with an average yield of 35 tons a day. The exploration works which the company is carrying out at Ceptura, where it possesses extensive fields, promise very favourable results shortly.

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
**American Office: 111, Broadway, New York.**

SATURDAY, JUNE 13, 1914.

## THE STANDARD OIL COMPANY AND CHINA.

THAT the Standard Oil Company does not intend to allow the grass to grow under its feet in regard to its petroleum interests in China has for years been evident. In the face of competition, of sometimes the severe order, it has for years held the predominating position in regard to the supply of petroleum products for the Chinese Empire, and what is more, its imports of American oil into Chinese ports have substantially increased each passing year, until for the twelve months ended last December, out of a total of 111,000,000 gallons of refined oil imported into China, no less than 62,000,000 gallons came from the United States and were imported and distributed by Standard Oil agents.

That the consumption of petroleum products in China continues to grow at a most rapid pace is seen from official statistics; and that the Standard Oil Company's share of the trade is also on the steady increase is likewise borne out by Consular returns. In this respect the following specially compiled table will be of interest, showing as it does the total refined oil imported into the Celestial Empire, and the quantities coming both from America and the East Indian fields :—

| Year. | Total imports from all countries in gallons. | American products. | East Indian products. |
|---|---|---|---|
| 1909 ... | 76,047,000 ... | 44,200,000 ... | 26,316,000 |
| 1911 ... | 82,573,000 ... | 52,640,000 ... | 29,457,000 |
| 1913 ... | 111,050,000 ... | 61,002,000 ... | 44,095,000 |

But it is clear that henceforth the Standard Oil Company will play a far more important rôle in regard to the oil trade of China than it has even done hitherto, for by its agreement with the Chinese Government for the exploitation of its oilfields—to which brief reference has previously been made in the Review—it will in the future be placed in an absolutely unassailable position in that Empire.

It will perhaps be of interest here to refer to the terms of this agreement, the full text of which has only recently been made public, for in our opinion it shows that not only has China made a good bargain, but the carrying out of the agreement will prove a very good and profitable business move for the Standard Oil Company. The terms disclose that the Chinese Government is to receive free of cost 37·5 per cent. of the share capital, with an option extending over a period of two years of purchasing 7·5 per cent. and the privilege of making purchases on the open market There is a proviso that the formation of the company is dependent upon proof being obtained that the oilfields are of sufficient value to be worth exploiting, this point to be determined by the staff of experts now in China; the cost to be jointly borne by the Chinese Government and the Standard Oil Company; the Government to furnish necessary escort, interpreters, and military sufficient to ensure the safety of the expedition.

The Chinese-American Company which will be the Standard's company will have the exclusive rights to work the oilfields in the districts named for sixty years, and the Chinese Government promises that no other foreign individual or corporation will be allowed to produce petroleum or any of its products, and that no other concessions of oilfields are to be made in China for a period of one year.

The operations will be in the Yenchiang, Yen An-fu and adjoining fields in Shensi Province and Chengtehfu (Jehol) and adjoining fields in Chihli Province. The concessions were obtained in competition with other concerns, and particularly with the Rising Sun Oil Company, a Japanese rival concern.

That the Shensi oilfields are of enormous value is almost beyond question, though little actual data are available. The most important known fields are in the Shensi Province and are of immense area, most of which is in the Yenchiang district, while in Chihli the fields are in the Chienchang district.

The general surprise is that China has not years ago made a commercial move to develop her oilfields: now that step has been taken, there is no doubt that immense progress will be rapidly recorded, and that the relations between the Standard Oil Company and the Celestial Empire will be of far-reaching importance.

◆

## THE J. F. LUCEY COMPANY'S NEW TREASURER.

We are officially informed that Mr. C. E. Miller has been appointed treasurer of the J. F. Lucey Company, New York, that gentleman having tendered his resignation as an officer of the Mechanics and Metals National Bank of New York City. In view of the continued increase in the business of the J. F. Lucey Company, Mr. Miller's wide experience will be of very material assistance.

◆

## ACTIVITY IN THE CALGARY DISTRICT.

We learn from a correspondent that there are nine wells being drilled in the Calgary field—viz.: Dingman well, 2,718 ft., with light oil; McDougall-Segur well, 2,450 ft.; Black Diamond, 1,580 ft.; United Oils, 1,570 ft.; British Alberta, 1,520 ft.; Southern Alberta, 800 ft.; Monarch, 640 ft.; Federal, 480 ft.; and Western Pacific, 300 ft. Arrangements, it is said, are being made to drill a further fifty wells in the district.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JUNE 8th, 1914.

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IN GALLONS.

| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. | Since June 1. | From Jan. 1. |
| Belgium .. | — | — | 33.010 | 350.610 | 2,000 | 2,000 | — | — | — | 32 22 | — | — | — | 1,350 | 35.010 | 386.180 |
| Canada .. | — | — | — | 4,400 | — | 47,300 | — | — | — | — | — | — | — | — | — | 51,700 |
| Dutch Indies | — | — | — | — | — | — | — | — | 980,600 | 23,805.560 | — | 83,400 | — | 1,748,910 | 980,600 | 25,637.870 |
| Germany .. | — | 29,250 | 46.220 | 1,245 120 | — | — | — | — | — | — | — | — | 4,300 | 4,300 | 50,520 | 1,278,670 |
| Holland .. | — | — | 1,440 | 5,050 | — | — | — | 182,000 | 5,500 | 3,369.780 | — | — | — | 11.210 | 6,940 | 3,568,040 |
| Mexico .. | — | 3,872.570 | — | 11,800 | — | — | — | — | — | 1,218.860 | 1,369,270 | 5.037.980 | — | 368.300 | 1,369,260 | 10.509,510 |
| Roumania .. | — | 7,659,900 | — | — | — | 961.440 | — | — | — | 2,655,250 | — | 2,361,470 | — | — | — | 13.638 060 |
| Russia . | — | 2,909,650 | — | 2,603,550 | — | — | — | — | 1 907,200 | 10,202.600 | — | — | — | 630 | 1,907,200 | 15.716,430 |
| U.S.A. .. | 2,290,160 | 46.850 230 | 1,372,010 | 22,443,510 | — | 91,270 | — | 32,780,450 | 4,174,180 | 9,664.680 | 2,030,390 | 7,635,140 | 7,900 | 256,790 | 9,874,640 | 119,713,660 |
| Other Countries | — | 3,770 | 2,590 | 143,000 | - | — | — | 1,460 | — | 210 | — | 4,150 | — | — | 2,590 | 152.590 |
| | 2,290,160 | 61,325,370 | 1,455 270 | 26 807,040 | 2,000 | 1,102,010 | — | 32,963,910 | 7,067,480 | 50.949 160 | 3,399,660 | 15,122 140 | 12,200 | 2,391,490 | 14.226.770 | 190.652,710 |

# Approaching Completion of the Mexican Eagle Company's Oil-Tanker Fleet

## TWO 15,000-TON VESSELS TAKE THE WATER THIS WEEK.

The gigantic oil tanker fleet of the Mexican Eagle Oil Company, Ltd., which is to carry Mexican petroleum products to all parts of the world, is nearing completion, and with the launching during the present week of two 15,000-ton vessels from North of England shipyards, nineteen of the twenty tankers are almost completed, the great majority being in actual commission.

The only unit of the fleet yet to be launched is the "San Patrico," which is also to be of 15,000 tons capacity and which is expected to be in service before the end of the present year. Then the Mexican Eagle Company will be in the unique position of having at its disposal an oil-carrying fleet which will in its twenty units be able to transport approximately a quarter of a million tons of petroleum products at one time, for ten of the vessels are capable of carrying over 15,000 tons each, while the remaining half have been built to transport over 9,000 tons each per voyage. The launches during the present week were those of the "San Nazario" and the "San Orofre," the former taking place on Tuesday from the Sunderland yards of Messrs. Doxford, and the latter the following day from the Walker yards of Messrs. Sir W. G. Armstrong, Whitworth & Co.

The "San Nazario," which was most gracefully launched by Mrs. H. W. Masters, wife of Mr. H. W. Masters (director of the Anglo-Mexican Petroleum Products Company, Ltd.), carries 15,600 tons and has a length of 540 ft., a breadth of 66½ ft., and a depth of 34 ft., her draught being 26 ft. She is a shelter deck oil tanker, built on the Isherwood system to Lloyd's highest class. The oil cargoes are carried in twelve holds, which are divided longitudinally by an oil-tight bulkhead into twenty-four compartments and separated from the remainder of the vessel by coffer-dams. A central expansion trunk of the usual form is provided between the main and upper decks and extends for the full length of the lower holds. The supplies of oil fuel for the boilers are carried in a large cross bunker aft, a deep tank forward, and at the sides of the main expansion trunk. The cargo holds are fitted with steam heating coils to facilitate the rapid discharge of her cargo, and the pumping machinery is the largest ever fitted on oil-carrying steamers, and has a pumping capacity of 1,200 tons per hour. Her machinery consists of quadruple expansion engines 28½ in., 41 in., 58 in., 84 in. by 54 in. stroke, and four single-ended boilers, 16 ft. 3 in. diameter by 12 ft. long by 220 lbs., fitted with the Wallsend-Howden system of oil burning, and will burn Mexican fuel oil. This machinery will develop 4,600 i.h.p. Accommodation for officers and men is provided on a very generous scale and the equipment of the ship in every respect is of a complete character, including cold storage refrigerators and Marconi's wireless telegraphy.

The launching ceremony was carried out in the presence of a large number of invited guests, and as the great tanker glided down to the waters of the Wear, to the accompaniment of loud cheers, Mrs. Masters wished it God-speed and a long life.

Photo by] The "San Nazario" Launch Party. [Topical Press Agency.

In spite of the comparative narrowness of the river at this point, combined with the enormous length of the vessel, the launch was carried out in a most successful manner, the "San Nazario" being pulled up and swung round by a couple of tugs.

Among those present at the launch we noticed Mr. and Mrs. H. W. Masters, Mr. E. H. Mundy (director of the Anglo-Mexican Petroleum Products Company, Ltd.), Mr. and Mrs. B. E. Holloway (Mr. Holloway being the secretary of the Mexican Railway), Miss Olga Dvorkovitz (London), Mr. and Mrs. Brewer, Mr. Jenkins, Mr. McDermott, Mr. D. W. Harvey (Anglo-Mexican Petroleum Products Company, Ltd.), and Mr. E. W. Delacour (publicity manager of the Anglo-Mexican Petroleum Products Company, Ltd.), Mr. Barringer (Messrs. Jacob & Barringer). Miss Hedley, while the builders were represented by Sir Theodore Doxford, Mr. E. A. Doxford, Mr. Robert Doxford, Mr. Charles Doxford, Mrs. William Doxford, and Miss Doxford.

Mr. and Mrs. H. W. Masters.

The guests subsequently assembled in the board room of the builders, when several interesting speeches were made.

In proposing success to the "San Nazario," Sir Theodore Doxford said that the vessel was a sister ship to the "San Jeronimo," which they launched for the same owners last year. She was one of the largest type of oil steamers afloat, and had been at work for some time. He was pleased to say she had been very successful indeed, and they had not had one word of complaint from the owners.

Mr. E. H. Mundy, on behalf of the Eagle Oil Transport Company, Ltd., in replying to the toast, presented to Mrs. Masters a model of an Elizabethan ship as a memento of the occasion. He said that the Eagle Oil Transport Company's fleet was rapidly approaching completion, and there only remained two vessels out of the twenty to be launched, one of which was to be launched the following day.

Sir Theodore Doxford then proposed the health of Mrs. Masters and thanked her for coming to launch the ship, and as a souvenir of the occasion presented her with a pendant set with aquamarines.

Mrs. Masters suitably responded and thanked Mr. Mundy and Sir Theodore Doxford for the gifts.

Mr. H. W. Masters, in proposing the toast of the health of the builders of the "San Nazario," said he had been connected with ships for a long time, and in his experience he had also had occasion to overlook vessels that had come from that yard. He could truthfully say with regard to the Doxford ships that they were always economical ships both in running and in consumption. With regard to the latest addition to the Eagle fleet, he might perhaps say one or two words on the subject of the trade in which the fleet was engaged. Notwithstanding the trouble which had occurred in Mexico they were now shipping from their Mexican terminal at the rate of 180,000 tons a month, or 2,000,000 tons a year; and that oil was being taken to all parts of the world. They all remembered the ancient saying about "carrying coals to Newcastle." They did not carry coals, but they had carried oil to Russia, which was a great oil-producing country, and they were carrying enormous quantities of oil to the United States, which was the largest oil-producing country in the world. Mexico stood third on the list of oil-producing countries in point of quantity produced, and it was a remarkable fact that the two countries that stood ahead of her were large customers for her oil. Even England, the country of old King Coal, was finding new uses for oil, and there were special trades where the peculiar advantages of oil were becoming

The "San Nazario" about to take the Water.

known and realised, and the consumption in England was increasing. His company had opened large depots at Thames Haven, Hull, Barton on the Manchester Ship Canal, and they were just completing a large depot at Avonmouth, near Bristol. It was interesting to note that the "San Melito," one of the vessels of their fleet, was due at Avonmouth on her maiden trip on Sunday week, and that would not only be her maiden trip, but she will carry the first cargo of fuel oil brought to the Avonmouth depot. They had also two other units of the fleet due in Manchester with cargoes of oil during the next fortnight. In other parts of the world they were equally busy. They had completed a large depot at Rio de Janeiro, and in May they shipped out to that depot its first cargo of oil fuel. Then they were now completing a large depot with a capacity of about 30,000 tons in Buenos Aires, and he hoped that in July they would send their first shipment of oil there. These facts might give a little idea of the business which the great fleet was engaged in—a fleet which was the pride of its owners and a source of envy to their competitors. He asked those present to drink the health of Sir Theodore Doxford and the builders of that fine ship, and in connection with the toast he also desired to mention the name of Mr. Barringer, of their good friends Messrs. Jacobs & Barringer, who had so well ooked after their fleet and were probably sorry that in he course of a few months the units would be omplete.

The toast was drunk with enthusiasm and briefly eplied to by Sir Theodore Doxford and Mr. Barringer.

The Launching Party Under the Bows of the "San Orofre."

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On Wednesday afternoon, before a large company, the il-tanker "San Orofre" was successfully launched rom the Walker yards of Messrs. W. G. Armstrong, Vhitworth & Co., the naming ceremony being performed y Mrs. Kindersley, wife of Mr. R. M. Kindersley, partner n the well-known firm of Messrs. Lazard Brothers of ondon, Paris, and New York, and himself a director of he Bank of England.

The launch took place in beautiful weather, and among hose present our representative noticed, in addition to Ir. and Mrs. Kindersley, Major W. A. Adam, Col. . Saxton White, Mr. Edwin L. Orde, Mr. D. R. IacDonald, Mr. H. Barringer (Messrs. Jacobs & arringer), Mr. A. Gulston, Mr. and Mrs. and Miss mart, Mr. Duguid, Captain and Mrs. Frith, Mr. T. G. Vood, Mr. Shute, Mr. Sample, Mr. and Mrs. Gray, Mr. nd Mrs. Ellis, Miss Tait, Dr. and Mrs. Grinling, Miss riestley, Mrs. D. R. MacDonald, Mr. J. S. MacDonald, nd Mr. S. T. Harrison.

Length over all, 548 ft.; length between perpeniculars, 530 ft.; breadth, extreme, 66½ ft.; depth, moulded, 41½ ft. to shelter deck. Propelling machinery of the quadruple-expansion type will be provided by the North-Eastern Marine Engineering Company, Wallsend. Steam will be supplied by four cylindrical boilers designed for a working pressure of 220 lbs., and arrangements are made for burning Mexican liquid fuel on the Wallsend pressure system.

The vessel has been built to Lloyd's highest class on the Isherwood system of longitudinal framing, and has a complete shelter deck. The shelter between deck space will be empty when oil cargoes are carried. The oil will be carried in twelve holds, which are divided longitudinally by an oiltight bulkhead, and separated from the remainder of the vessel by coffer dams. The oil holds are fitted with steam-heating coils to facilitate handling of cargo. A central expansion trunk of the usual form is provided between the main and upper decks, and extends for the full length of the lower holds. The spaces at the sides of the main expansion trunk will be utilised for carrying oil or fuel, and are provided with separate expansion trunks extending through the shelter 'tween decks.

The necessary supply of fuel oil for the boilers will be carried in a large cross bunker aft, a deep tank forward, and at the sides of the main expansion trunk. The oil-pumping installations in these vessels are the largest ever fitted on oil-carrying steamers, and are specially adapted for dealing with heavy oil. The accommodation is very complete for a vessel of this type, and includes a hospital and cold store rooms for provisions. Marconi wireless telegraphy installations are provided.

After the "San Orofre" had gracefully taken the water to the accompaniment of the cheers of the guests, the launching party were entertained to light refreshments in the dining room adjoining the general offices of Messrs. Armstrong, Whitworth & Co.

Colonel R. Saxton White presided, and in asking the company to drink to the success of the magnificent ship "San Orofre," presented Mrs. Kindersley, on behalf of the builders, with a beautiful silver cup as a memento of the occasion, the cup being suitably inscribed.

Major Adam replied on behalf of the owners, and also asked Mrs. Kindersley's acceptance of a souvenir of the interesting event in the shape of a silver model of an old Elizabethan sailing vessel. He thanked the company for having so heartily drank the toast, and expressed the hope that a career of great prosperity would lie before the "San Orofre."

Mr. Kindersley, in returning thanks on behalf of Mrs. Kindersley, congratulated the builders upon their production of such a fine ship, and thanked them, and also the Eagle Oil Transport Company for the beautiful gifts to his wife. On her behalf he could assure the company that the occasion would not readily fade from their memories.

The interesting proceedings then concluded.

# The Maikop Pipeline and Transport Company, Ltd.

## DIRECTORS' REPORT.

The report of the directors of the Maikop Pipeline and Transport Company, Ltd. to be presented at the fifth ordinary general meeting, to be held next Monday, and which covers the year ending January 13th, 1914 (December 31st, 1913, Russian style), is as under :—

The profit and loss account shows gross receipts from pumping, £31,633. 0s. 5d. ; dividends and transfer fees, £22,718. 8s. 1d. ; making a total of £54,351. 8s. 6d. The total expenditure in London and Russia amounted to £21,021. 11s. 10d., and hereby reducing the total to £33,329. 16s. 8d. Deducting debenture interest paid, £11,779. 11s. 9d., and doubtful debts reserve, £927. 2s., the total amounts to £12,706. 13s. 9d. The net profit for the year is £20,623. 2s. 11d. ; this, with the undistributed balance of profit from the previous year of £11,122. 19s., makes the total amount available for appropriation, £31,746. 1s. 11d.

The directors have decided to write off the balance of preliminary expenses amounting to £1,750. 15s. 6d., to place to depreciation account £20,000 and to carry the balance, £9,995. 6s. 5d., to the debenture stock redemption sinking fund, in accordance with the provisions of the debenture trust deed.

The expenses in connection with the acquisition of the undertaking of the Maikop Mutual Oil and Transport Company, Ltd., £1,543. 5s. 11d., and debenture issue expenses £2,498. 5s. 5d., making a total of £4,041. 11s. 4d. have also been written off against profit on redemption of debentures, this profit being the difference between the price at which the stock redeemed during the year was issued and the figure at which such redemptions were effected.

The total quantity of oil received for pumping during the period under review was 4,167,060 poods.

The active development work referred to in the last annual report has taken more time to mature than was anticipated. The production, however, is now on the up grade, and the results recently obtained in various parts of the Maikop field, particularly during the last few weeks, are most satisfactory.

The directors are pleased to record that the deep drilling operations in the western part of the field—about 12 miles from the present producing area—have proved the existence of oil at depth. The deep well on Plot 108 in this district, which for over twelve months was out of repair, is now in regular production, and flows periodically. During the last few days a well drilled by the allied companies of the Anglo-Maikop Group on the neighbouring Plot 120 has also struck oil. The present depth is 2,272 ft. and the level of oil has gradually risen to 900 ft. with strong gas.

The area in Shirvansky from which most of the production has been hitherto obtained, was appreciably extended during the year by the wells on Otvod 21 of the Maikop Premier Oil Syndicate, Ltd., and many wells are now being drilled in this district.

With regard to the developments in the north-eastern part of the field, the problem of shutting off the water referred to at the last general meeting has now been solved, and four exploratory wells have just been brought into production by the Maikop New Producers, Ltd., and The Black Sea Oilfields, Ltd. Very active operations are also being carried out by several other companies owning plots in this area.

The 6-in. pipeline from Krimskaya was opened for pumping in August last. While it is satisfactory to note that all the wells completed at Krimskaya by the Maikop Midland Oilfields, Ltd., and the Levanovskoe Petroleum Company, Ltd., have struck oil, the developments on this field up to the present have not been so successful as was anticipated, mainly owing to unforeseen delays caused by the difficult formation encountered.

On account of the results obtained in this field, several plots have been acquired by Russian firms of long experience in the oil business, and drilling work has already been commenced thereon.

Debenture stock to the value of £62,613 has been redeemed to date out of the moneys set aside to the sinking fund up to January 13th, 1913, and the sums realised from the sale of plant and machinery. The amount of debentures now outstanding is £175,297.

It will be seen from the accounts that the economies in the standing charges foreshadowed in last year's report have been fully realised.

The new pumping contracts entered into by the company provide for higher charges than those ruling during the period covered by the present accounts.

A notice is enclosed of an extraordinary general meeting to be held immediately following the ordinary general meeting, for the purpose of submitting a resolution for the insertion in the company's memorandum of powers to undertake the supply of water to the oilfields. This business, the directors consider, can be very profitably carried on in conjunction with the oil transport business. If the resolution is passed at the extraordinary general meeting, it will be submitted for confirmation as a special resolution at a further extraordinary general meeting, to be held July 1st, 1914.

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# The Suitability of Natural Gas for Making Gasoline.

By Mr. GEORGE A. BURRELL.

IN almost every oil-producing State in America gasoline is being extracted from the natural gas that accompanies the oil. In Wyoming the oil developments are yet in an embryonic stage, so that installations for the production of gasoline from natural gas have not been made, but there is no reason to believe that Wyoming natural gas will not in time contribute to the gasoline production of the country. Hence a brief description is here given of the more important factors that must be taken into consideration in the erection of plants for obtaining gasoline from natural gas. The method of plant operation described in this paper is that generally used throughout the country. Some plants differ in detail, and at a few plants processes embodying arrangements that differ considerably are used. No attempt is made in this paper to describe the operations in detail.

A statement by David T. Day, published by the United States Geological Survey, shows that in the year 1911 about 7,500,000 gallons of gasoline were produced from natural gas in the United States. Day believes this estimate to be low. The writer recently made an extended investigation of this industry in Oklahoma, and found during May, 1913, that twenty-three plants produced about 400,000 gallons of natural-gas gasoline. There were about 25,612 producing oil wells in Oklahoma at the end of May. At only about 300 wells was casing-head gas being utilised to make gasoline. The writer estimates that the value of the recoverable gasoline escaping as gas in Oklahoma is 10 per cent. of that of the crude oil produced. These figures indicate the possible value of the gasoline obtainable from the natural gas in one State, and show why the possibilities of Wyoming natural gas should be given careful attention. Gasoline contains those members of the series of paraffin hydrocarbons that are liquid at ordinary temperatures. Such members as concern one interested in the utilisation of natural gas are mentioned in the accompanying table, which gives some of their characteristics :—

PROPERTIES OF THE PARAFFINS ORDINARILY PRESENT IN NATURAL GAS AND GASOLINE.

| Name of paraffin. | Formula. | Boiling point. | Specific gravity at 760 mm. and 0° C. (air = 1). | Weight of 1 litre (45° C., sea level). Grams. | Heating value per cubic foot at 0° C. and 760 mm. B.T.U. |
|---|---|---|---|---|---|
| Methane | $CH_4$ | —160° C. | 0·5544 | 0·7159 | 1.065 |
| Ethane | $C_2H_6$ | — 93° C. | 1·0494 | 1·3567 | 1,861 |
| Propane | $C_3H_8$ | — 45° C. | 1·5204 | 1·9660 | 2,654 |
| Butane | $C_4H_{10}$ | 1° C. | 2·0100 | 2·5940 | 3,447 |
| Pentane | $C_5H_{12}$ | 36·4° C. | — | — | 4,250 |
| Hexane | $C_6H_{14}$ | 68·9° C. | — | — | 5,012 |
| Heptane | $C_7H_{16}$ | 98·4° C. | — | — | — |

| Name of paraffin. | Illuminating value. British candle-power. | Liquefaction point. ° C. | Liquefaction point. Lbs. per sq. in. | Calculated volume of gas (at 60° F, and 30 in. pressure) from 1 gal. Cubic feet. | Theoretical volume of air necessary to burn 1 cubic foot of gas. Cubic feet. |
|---|---|---|---|---|---|
| Methane | 5·0 | —95·5<br>—81·8 | 735<br>807 | — | 9·57 |
| Ethane | 35·0 | 35·0 | 664 | 53 | 16·75 |
| Propane | 53·9 | 97·0 | 647 | 45 | 23·92 |
| Butane | — | — | | 37 | 31·10 |
| Pentane | — | — | | 31 | 38·28 |
| Hexane | — | — | | 27 | — |

It will be noticed that the first four hydrocarbons—methane, ethane, propane, and butane—are gases at ordinary temperatures. The first two—methane and ethane—predominate in natural gas that issues under considerable pressure, and is used for lighting and heating cities. Small quantities of propane and butane also exist in such natural gas, also some of the vapours of the gasoline liquids, pentane, hexane, and heptane, but not enough to make the natural gas valuable for gasoline production. Temperatures low enough and pressures high enough to keep methane in the liquid condition in the earth have not been found in wells, but all of the other paraffin hydrocarbons mentioned in the table may occur as liquids or vapours in the earth, and the three last named are, of course, always found as liquids. At ordinary temperatures and under a pressure of 635 lbs. to the square inch ethane is liquefied, and in the earth under less pressure it is a gas. Propane is more easily liquefied than ethane, and butane more easily than propane. The last two, in the case of casing-head gases that are used for gasoline manufacture and are usually drawn from the wells under reduced pressure, are gases. The "permanent" gases as they issue from the wells are accompanied by more or less of the liquids in the form of vapour, just as water vapour exists in the atmosphere. The quantity of water vapour carried in the air depends principally upon the temperature of the air although pressure has some effect. Similarly, the proportion of vapour that accompanies the permanent gases issuing from a well depends on the temperature and pressure in the well. Other factors that affect the proportion of vapours present are the proportion of gasoline or lighter fractions in the oil and the intimateness of contact between oil and gas in the underground reservoirs.

The natural gas used in many plants for gasoline manufacture is drawn from wells as much as four miles distant, and the number of wells supplying gas may be fifty or more. The reduced pressure under which the gas is drawn from the wells may be equivalent to 25 inches of mercury.

The treatment of the gas in the gasoline plant consists in compressing it to 25 to 50 lbs. per square inch and passing it through cooling coils made of 2-inch pipe on which water at ordinary temperature is sprayed. At some plants the coils are immersed in tanks. Some liquid constituents are recovered at this stage of the process, but the quantity is comparatively small. The residual gas from the first compression is subjected to pressures as high as 350 lbs. per square inch, and then cooled in the same manner as before. The greatest amount of liquid that is obtained after the second compression and cooling may range from 1½ to 4 gallons per 1,000 cubic feet of gas treated. The liquid is received in tanks under heavy pressure. For marketing it is withdrawn and usually mixed with low-grade refinery naphthas.

In the operations described several changes occur in the gas, such as condensation of vapour, liquefaction of gas, and solution of some permanent gases in the liquid produced. That chemical changes occur—that is, a "cracking" of paraffin hydrocarbons at the temperatures and pressures used—is unlikely. The liquid collected in the receiving tanks may be very volatile, "wild," as it is called by the trade, and range in specific gravity from 0·676 to 0·582 (77° to 110° B.); consequently there is a considerable loss when it is exposed to the air. This loss may range from 10 to 50 per cent. or more of the original liquid. Blending of the material with the refinery naphthas should be performed rapidly and as soon after manufacture as possible.

Natural gas is divided according to popular classification into "dry" gas, or that from which gasoline cannot be extracted on a commercial scale, and the so-call "wet" gas, or that from which gasoline can be utilised, as described. There is, however, no sharp line of demarcation between "dry" and "wet" gas. The driest "dry" gas is that containing methane as the only combustible gas. Such gas issues from marshy beds and is found in regions where oil is not encountered, but is of rare occurrence in the oilfields. Next in order may be mentioned the natural gas that occurs in oilfields but is not associated with oil. It contains methane as the predominating paraffin hydrocarbon, but also contains higher members of the paraffin series. Such natural gas yields a liquid, "drip," as it is called, in the pipelines, especially in the winter time, but is not rich enough in the higher hydrocarbons to be of commercial consequence for gasoline production. Natural gas, such as is supplied to Pittsburgh, Pa., Cleveland, Ohio, and other cities is of this general character. Finally may be mentioned the so-called "wet" gas, associated with oil, from which gasoline in commercial quantities can be obtained.

Throughout this paper the term "gasoline" is loosely used, as it is in the trade. Liquids having a specific gravity of 0·737 (59° or 60° B.) are largely sold as gasoline to-day, but liquids having greater and less densities are also utilised for the purposes for which gasoline is used. The specific gravity of so-called natural-gas gasoline may be as low as 0·58 (110° B.). A greater loss by evaporation of course follows the handling of such gasoline.

Proper testing of casing-head or other gas for gasoline production is important. At present the methods used include determination of the specific gravity of the gas, of its solubility in claroline oil, kerosene, alcohol, or olive oil, and of its combustion analysis, and its testing at the well with a small outfit consisting of a gas meter, gas engine, and compressor.

The writer knows of natural gases having as low a density as 0·81 (air = 1) from which gasoline is extracted. Gases ranging as high as 1·64 in density have been tested. Actual testing of the gas by means of a small portable outfit is always desirable. In drawing conclusions from the density determination it should be remembered that the presence of considerable nitrogen or carbon dioxide in the gas mixture would vitiate conclusions if their presence were not taken into consideration. Most natural gas contains the paraffin hydrocarbons in such large percentage that the density of the gas may be considered as being affected almost entirely by the proportions, but there are some exceptions. The paraffin hydrocarbons increase in density with ascension in the series; hence the density determination gives one an idea of the nature of the paraffins present.

Gasoline is also being extracted from natural gas that has as low an absorption percentage as 30 (absorption in claroline oil). The test of solubility is made by shaking 100 c.c. of the gas with the oil until the absorption is constant. Shaking 100 c.c. of the gas with 50 c.c. of alcohol gives about the same result.

Aside from the quality of the gas, the quantity available is a vital consideration. The writer knows of a few plants that are operating on as little as 40,000 cubic feet of gas daily, but the plants are largely experimental. The successful plants are utilising at least 125,000 cubic feet. Tests of the quantity of the gas are usually made by means of a Pitot tube. If the portable outfit already mentioned is available, the meter that accompanies the outfit is used for the gas measurements.

Before a plant is built, each well on the lease or adjoining leases should be carefully tested for quality and yield of gas. Different wells in the same lease may produce little or no gas or as much as 500,000 cubic feet daily. One well may yield gas of excellent quality, whereas another may yield gas that is practically worthless for gasoline manufacture.

The residual gas left after the gasoline has been extracted is frequently returned to the wells to be used in gas engines for pumping. At some places it is run into gas mains and used for town supply. The residual gas is of higher heating value than the natural gas used in Pittsburgh, Cleveland, and other cities. At some plants air leaks into pipe connections between the plants and wells, so that the residual gas, which contains this air, has justified complaints that residual or "stripped" gas does not work well in gas engines. Residual gas should be frequently analysed for oxygen, and all connections should be kept tight.

A single-unit plant, consisting of two gas compressors, gas engines, piping, cooling coils, storage tanks, housing, etc., costs about $9,000 or $10,000, and will handle at least 500,000 cubic feet of gas. Two men, a day and a night engineer, can care for it. Interest on investment, depreciation, plant upkeep, accidents, etc., are, of course, other factors to be considered. Some of these will vary widely. The returns on the investment are, however, large. The ready disposal of the gasoline—that is, the shipping facilities available—is, of course, a vital consideration.

Of the gases whose analyses are shown in this paper, one, seemingly the richest in gasoline vapour of the several examined, is worthy of further investigation as regards its commercial possibilities. It has a density of 0·96 (air=1), but this is in part due to its containing much nitrogen, a worthless constituent. If the nitrogen were replaced by an equivalent quantity of ethane and propane, the density of the gas would, of course, be higher. It should be added that the gas analyses in the table give the percentage of the two predominating paraffin hydrocarbons only. Other gaseous paraffin hydrocarbons or gasoline vapours present are not shown, but the higher the gaseous paraffins, as shown by analyses, the higher usually is the gasoline-vapour content. The analyses give absolutely no indication of the possible value of other natural gas in the Wyoming oilfields.

# SOME NEW OILFIELDS IN THE BAKU PROVINCE.

By Mr. A. F. STAHL.

In 1912 and 1913 the author investigated the petroliferous areas of Schemacha and Dschawat in the Baku province, which he describes as follows :—

Achtarma-Paschaly.—Paschaly is a small village on the river Pirsagat in the district of Schemacha, and Achtarma a little plateau, about 150 metres above Paschaly, in the midst of the mountain range which begins from Schemacha and extends in a south-eastern direction. The area is thus surrounded by the valley of the Pirsagat river on one side, and on the other by the extensive Mughan Steppes, and closes at the extreme south-west with the Mischow-dag.

The whole of this mountainous range forms an anticlinal fold of tertiary sediments, the saddle of which lies in a north-west south-east direction, rising in some places and falling in others, and generally being subject to various curves. The saddle of the whole of the mountainous range is marked by an oil-line, commencing at Schemacha and conspicuous by its mud volcanoes and oil outbreaks.

The name of Achtarma-Paschaly refers principally to the district of the Kalamadyn mountains on the north-west to the great Harami mountains (Karadag) on the south-east. The Kalamadyn mountain, reaching a height of 400 metres, is composed of limestones, sandstones and clays of the Apsheron series of the Pliocene, with characteristic Apsheron propinqua, Cardium and dry sands, etc., and the lower strata with Corbicula, etc. These strata fall on one side 25°-30° south-west and on the other side 20° north-east, whereby the heights of the mountain on the south-western range already belong to the anticlinal, and on the north-eastern range are severely eroded. The saddle height extends here in a north-west south-east direction, and is noticeable by its three mud volcanoes. North-westerly from the middle of these volcanoes there is a very large oil outbreak, and here appear oil sandstones on the surface. Close to the third large volcano, which practically consists of two groups of craters, there are several outbreaks of oil, and all three volcanoes evolve, together with salt-water and mud, oil and gas.

The Achtarma plateau is almost round, and about 2 kilometres in diameter. To the west and south-west it falls in terraces, while to the east the fall is gradual. The ground consists on all sides of strongly eroded Apsheron clays. On the northern limit of this plateau there is a small mud crater, and in the middle of it two very wide-mouthed craters, evolving liquid mud and large quantities of gas, which very often ignite and burn for weeks. There is noticeable round the mud a circle-shaped depression, which is very characteristic of all large mud volcanoes in the district, and which shows that the centre of most of these pseudo volcanoes is to be found, not at any depth, but near to the surface in the water-containing clayish strata. These latter are broken up by the pressure of the gas evolving from the oil-containing strata.

It has to be remarked that large mud craters almost always contain very small oil traces, as the oil mostly finds its way to the side of the volcanic depression. This is easily explained by the fact that the gases penetrate through the various mountainous layers easier than the oil, which but seldom reaches the clayish strata, and then in small quantities. The oil, therefore, must seek for a side outlet, and during such emigration naturally loses its light components and appears on the surface as an oxidated, heavy oil. Besides the materials thrown out by the Achtarma crater, which consist of greyish-blue, sandy-clayish mud, there are also larger lumps of light-coloured marly limestone, which resemble the Pliocene Aktschagyl strata. There are also found in this mud grey and brown sulphur, containing sandstones and dark slates, all impregnated with oil, and which belong to the Balakhani series, the middle and lower horizons of which, in the oilfields of the Baku district, contain the most oil, and have until recently been considered as belonging to Oligocene.

On the south border of the Achtarma plateau there are two groups of larger oil outbreaks, and on the south-eastern extension of the plateau, at the point where this passes into the Harami mountains, there is a group of stiff mud volcanoes on the bases of which oil breaks out. Oil sandstones also appear on the surface. According to all appearances the anticlinal saddle height forms an arc on the Achtarma plateau, and extends even farther on in an east-south-east direction through the mountains Kaladschyk and Harami, where it divides into two folds, of which one part is a very large mud volcano with strong oil outbreaks and kir formations, all lying in the meadows Dziagerly and Kryk, the other one extending farther on in a south-eastern direction.

The Harami mountains consist of strata of the Apsheron series and above them, on the north, of Baku strata, whereby the land situated to the south is here very strongly eroded, and the whole mountain is crossed by deep ravines. Further on in a south-eastern direction we find on the south-western slope of the anticlinal vertically directed Baku limes of the Upper Pliocene, and still more towards the south, at the station Adji-Kabul, we find the diluvial Ural Caspian sediments.

In the Achtarma-Paschaly district within the anticlinal fold we must also expect to find sediments of the Balakhani series and the meotic, pontic, and Aktschagyl periods, more or less discordantly overlaid by the Apsheron and Baku strata, while at Kalamadyn and the south-eastern end of the Achtarma plateau there are older strata, and the plateau itself lies there in the valley between two elevations. In any case, the productive strata cannot lie very deep here, as a large part of the younger sediments is worn off. In view of the large quantities of evolving gases, there is no doubt that there are within certain limits prolific oil strata.

*(To be continued.)*

# MOTOR OWNERS' PETROL COMBINE, LTD.

On Tuesday the annual general meeting of shareholders in the Motor Owners' Petrol Combine, Ltd., was held in the Princes Hall, Hotel Cecil, Strand, W.C., the Right Hon. the Earl of Carrick (Chairman of the company) presiding.

The Secretary (Mr. H. Blondell) having read the notice convening the meeting and the report of the auditors,

The Chairman said: We meet you to-day in very different circumstances to those of the last occasion. We were then called together by a requisition in order that a series of resolutions should be put to the meeting. These resolutions were put forward by a number of shareholders who were incited to this action by the articles which had appeared in a paper called *Rubber and Oil*. By a show of hands you reposed confidence in your board, and after looking at the balance-sheet and report I ask you whether that confidence has been misplaced or not. Before leaving the subject of this last special meeting, I would like to point out that the editor of *Rubber and Oil* and his colleagues were convicted and sentenced by Mr. Justice Darling, Beall himself receiving the maximum sentence of five years' penal servitude. Turning now to the balance sheet and report, I think we can thoroughly congratulate you upon the 10 months' working. When questions were asked us at the special meeting we assured you that we estimated our net profits would be about £50,000 per annum. For 10 months' working we have certified net profits of over £46,000, which is at the rate of over £55,000 per annum, and I may, therefore, say at once that we have more than fulfilled what was stated at that meeting. Our net profits amount to £46,334. 9s. 2d. We have regularly paid all our debenture interest, and we now recommend that the dividend on the preference shares shall be made up to 9 per cent., that the ordinary shares shall receive in all 17 per cent., and the deferred shares a dividend of 4½d. per share. It has also been decided to pay a bonus of 4d. per gallon upon all purchases of Combine spirit to members of the Combine, as stated in the report. I venture to say these results should be most satisfactory to everyone concerned.

Your wells are progressing satisfactorily, and we have every hope that our production for the present year will exceed that of the period under review. I regret, however, to have to tell you that, at the time of the visit of your directors to the properties in Galicia, at one of our principal wells a very serious accident occurred, and at the time it was impossible to say for how long the production would be lost. The accident was of so serious a nature that it might have been 12 months or more. The *esprit de corps* was so strong, however, that the staff have spared no effort to repair the very heavy damage done, and, consequently, I am in the happy position of telling you that this well is now producing again at the rate of 70 tons a day after a stoppage of only six weeks. I would draw attention to the auditors' note that no provision has been made for depreciation of oil properties or their equipment. The directors consider that in striking a balance between the depreciation of the Rockefeller well and the appreciation of our Morgan and other properties, which are daily becoming more valuable as they get nearer the producing stage, the difference is distinctly on the side of appreciation instead of depreciation; it is for that reason that they have thought it sufficient on this short period to write off £5,000 against formation expenses and to carry forward £6,185 to a reserve fund. The refinery at Thames Haven was completed during the period under review, and since then we have been doing our utmost to keep up with our orders for Combine spirit.

May I remind you that very considerable difficulties exist in starting a scheme of distribution such as ours must be? Plant has to be ordered and obtained, agents have to be appointed, and the arrangements for stocking and transporting petrol are not easy for a new company to accomplish. On this point we have done a great deal in a short space of time, and those of our shareholders who are not yet within the areas we are covering must be as patient as they can, and take comfort from the dividend which the company is earning in its general business whilst all this development work is progressing. You will readily understand that to at once establish depots all over the kingdom for our spirit would be so costly as to seriously jeopardise the sound position of our company, and we are of opinion that our policy of gradual extension is the more satisfactory one to pursue. You will see from the report that your directors recently visited the oilfields to inspect the company's properties. The closer knowledge they thus gained of the company's business and of the way your affairs are looked after on the spot by the local management, should prove of great advantage to this company. No one could help being impressed by the enthusiasm which the local management display in their work, and the directors were perfectly satisfied with the progress which was being made on the company's properties. The board sustained a great loss through the death of Lord Arthur Cecil, the news of which came as a sad and sudden blow to all of us, but I am glad to say that in his place the board elected one of our shareholders, Sir Robert Moncreiffe, to fill the vacancy. I now beg to propose the following resolution:—"That the balance-sheet and profit and loss account for the year ended December 31st, 1913, with the auditors' certificate and report, and the directors' report thereon, be and the same are hereby received, approved and adopted, and that a dividend at the rate of 10 per cent., less income-tax, be paid upon the fully-paid ordinary shares of the company to all shareholders whose names are inscribed on the company's registers on the 30th day of June, 1914, and that out of the surplus profit an additional dividend at the rate of 1 per cent., less income-tax (making the preference dividend 9 per cent.), be paid upon the fully-paid preference shares of the company, and a further dividend at the rate of 7 per cent., less income-tax (making the ordinary dividend 17 per cent.), be paid upon the fully-paid ordinary shares of the company, and that a dividend of 4½d. per share, free of income-tax, be paid upon the deferred shares of the company to all shareholders whose names are inscribed on the company's registers on the 30th day of June, 1914."

Sir Robert D. Moncreiffe, Bart., A.D.C., seconded the motion.

Mr. Arthur Hudson, K.C., said he was glad to be able to congratulate the management on what appeared, on the face of it, to be a very satisfactory report. At the same time, he did not quite follow the chairman when he told them that the appreciation of one property was being set against the possible depreciation of another property. However the properties themselves might appreciate it was quite obvious that the equipment would not appreciate in value. It appeared to him to be, perhaps, a little rash to allow so long a period as eight years to elapse before the items of underwriting commissions and promotion expenses were wiped out.

Mr. Charles Wibberley suggested that if information as to the relation between gross profits and working expenses could be given on the next occasion, it would be much more satisfactory to the shareholders.

Mr. Clarke asked if any further capital had been issued since the formation of the company, and, if so, at what rates, and whether they were making any use of that special process for manufacturing special spirit, which had cost the company £10,000. With regard to the bonus offered to shareholders for the petrol they used, he would like to know if that meant users of motor spirit on the river as well as on the road.

The Chairman, in reply, said that with regard to the question put by Mr. Hudson and supported by others, as to the depreciation of equipment, the opinion of the board was that, while they quite agreed that all the equipment must depreciate, and particularly the class of equipment that they had, still, from what they saw themselves in Galicia, they were very strongly of opinion that their property had appreciated not only sufficiently to cover any depreciation of equipment, but to a great extent beyond that. He thought the shareholders would realise the fact when he told them that in the prospectus their auditors only certified that from one well they expected to get a profit of £30,000 a year, whereas in 10 months they had got £45,000. There were other wells that were still to come into production and he thought that if they would capitalise that, they would at once see that their property had appreciated to an extent more than sufficient to cover the depreciation of the equipment. With regard to the underwriting, they had every hope that during the current year their production would be so much further increased that they would be able to write off at the end of the current year a considerably larger amount than they had done in the report they were considering. The directors would keep in mind the suggestion that the gross figures should be shown when preparing the next report. As to the Rockefeller well, at the time of the accident it was producing 100 tons per day, but owing to the accident they were not at the moment able to produce the full quantity. When they had completed the repairs and had extracted the last tube they hoped to get a production of 100 tons a day again. The whole of the output of the refinery was being produced under the special process. The bonus on their spirit was not intended for those who purchased the spirit to retail it and to make a profit, but it applied to those who used the spirit, whether on the road or on the river. The extra dividends to be distributed were quite in accordance with the proportions stated in the prospectus.

The resolution was carried unanimously.

The retiring director, Sir Robert D. Moncreiffe, Bart., A.D.C., was unanimously re-elected, and the auditors, Messrs. Price, Waterhouse & Co., were reappointed.

The proceedings then terminated with a vote of thanks to the chairman, directors and staff, of which the chairman made appropriate acknowledgment.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

June 12th, 1914.

There are no further alterations in the prices of Refined Petroleum, which remain as follows :—Russian, 7d. ; American, 7¼d.; American Water White, 8¼d.; Roumanian, 6¾d. ; Galician, 6¾d.

### LUBRICATING OILS

are quoted for :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current quotation is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 70s. per ton, in bulk, ex wharf.

### GAS OIL.

The market price per gallon in bulk, ex wharf, is 3¼d.

### MOTOR SPIRIT.

1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality, represent the retail prices in London.

### TURPENTINE.

American spot is quoted 33s. 1½d. ; July/August, 33s. 4½d. ; September/December, 34s. 4½d. ; January/April, 35s. 3d.

## LIVERPOOL.

June 11th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## AMERICA.

New York, June 11th.

Refined, in cases, is still quoted at 11·10 ; Standard White, 8·60 ; Credit balances, 1·90.

Philadelphia, June 11th.

Standard White is quoted at 8·60.

## RUSSIA.

Baku, June 11th.

The market is abnormal owing to the general strike at the field. The latest quotations are :—Crude oil, 37½ copecs per pood spot. Kerosene, 48 copecs. Residuals, 36 copecs.

## ROUMANIA.

June 9th.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·10–8·20 |
| ,, ,, ,, | Moreni ... | 7·20–7·50 |
| ,, ,, ,, | Tzintea ... | 5·80–6·50 |
| ,, ,, ,, | Policiori... | 6·25–6·50 |
| ,, ,, ,, | Bordeni ... | 8·75–9·00 |
| ,, ,, ,, | Bana ... | 9·00–9 50 |
| ,, ,, ,, | Baicoi ... | 7·50–8·25 |
| Paraffin ... ... ... ... ... | | 125 |

### Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... .. ... ... ... | 8·00 |

## GERMANY.

Hamburg, June 10th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

June 9th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date June 11th, as follows :—

The market is very quiet and prices of oil sizes are practically unchanged at last week's rates, viz. :—

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 12/7½ per box. |
| 1c | 20 ×10 | 225 ,, | 156 ,, | ... | 17/7½ ,, |

F.o.b. Swansea. Tin lining and iron hooping extra.

## IMPORTS OF PETROLEUM PRODUCTS.

(*Concluded from page* 682.)

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| June. | Grangemouth— | | | |
| 30/5 | J. Rankine & Son ... ... | Lub. | 6,110 | Antwerp |
| 2 | Jas. Currie & Co. ... ... | ,, | 600 | Hamburg |
| 4 | ,, ... ... | ,, | 4,120 | ,, |
| | Leith— | | | |
| 30/5 | Jas. Currie & Co. ... ... | ,, | 120 | ,, |
| 2 | ,, ... ... | ,, | 1.200 | ,, |
| 2 | G. Gibson & Co. ... ... | ,, | 320 | Antwerp |
| 4 | Jas. Currie & Co. ... ... | ,, | 360 | Hamburg |
| 6 | ,, .. ... | ,, | 1,200 | ,, |
| 8 | ,, ... ... | ,, | 240 | Bremen |
| 8 | G. Gibson & Co. ... .. | .. | 40 | Antwerp |
| | Cork— | | | |
| 2 | P. Murphy & Co. ... .. | ,, | 120 | Hamburg |
| | Belfast— | | | |
| 4 | J. C. Pinkerton & Co. ... | ,, | 150 | ,, |
| | | | 14,226,770 | |
| | Deduct— | | | |
| | Bristol— | | | |
| 21/4 | Anglo-American Oil Co. .. | Gas | 24,560 | Baton Rouge |
| | London— | | | |
| 18/2 | H. P. Wheatley & Co. ... | Lamp | 342,000 | Port Arthur |
| 15/5 | Port Authority ... ... | Lub. | 500 | Philadel. |
| | Add— | | | |
| | Bristol— | | | |
| 21/4 | Anglo-American Oil Co. ... | Fuel | 1,420 | Baton Rouge |

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED JUNE 8TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| June. | LONDON— | | | |
| 29/4 | Anglo-Mexican Petroleum Products Co. | Fuel | 5,190 | P. Mexico |
| 28/5 | Anglo-American Oil Co. | Benzine | 659,700 | New York |
| 28/5 | " " | Naphtha | 2,136,950 | " |
| 2 | Asiatic Petroleum Co. | Benzine | 1,907 200 | Novorossisk |
| 2 | Port Authority | Lub. | 1,160 | Hamburg |
| 2 | Usher-Walker, Ltd. | Other Sorts | 4,300 | " |
| 2 | A. Duckham & Co. | Lub. | 600 | Antwerp |
| 2 | F. Chiesman & Co. | " | 2,170 | New York |
| 2 | Scott's Wharf | " | 2,500 | " |
| 2 | Langley, Smith & Co. | " | 5,400 | " |
| 2 | " " | " | 2,830 | N. Orleans |
| 2 | Lubricating & Fuel Oils Co. | " | 6,150 | " |
| 3 | Bowring Petroleum Co. | " | 19,610 | Philadel. |
| 3 | London Welsh St'mship Co. | " | 2,700 | " |
| 3 | J. W. Cook & Co. | " | 3,400 | " |
| 3 | Anglo-American Oil Co. | " | 4,000 | " |
| 3 | " " | " | 22,640 | New York |
| 3 | Bowring Petroleum Co. | " | 6,720 | " |
| 3 | Mercantile Lighterage Co. | " | 3,160 | " |
| 3 | Vacuum Oil Co. | " | 11,270 | " |
| 3 | American Export Co. | " | 60 | " |
| 3 | Port Authority | " | 4,200 | Hamburg |
| 3 | Schliemann Oil, etc., Co. | " | 5,400 | " |
| 3 | " " | Lub. Gr. | 30 | " |
| 3 | R. T. Lucas & Co. | " | 790 | New York |
| 3 | Asiatic Petroleum Co. | Benzine | 5,500 | Rotterdam |
| 4 | Callender's Cable Co. | Lub. | 8,020 | Philadel. |
| 4 | A. Mayer & Co. | " | 80 | New York |
| 4 | Vacuum Oil Co. | " | 10 | " |
| 4 | C. Shaw, Lovell & Sons | " | 1,140 | " |
| 4 | Atlantic Transport Co. | Fuel | 31,000 | Baltimore |
| 4 | Port Authority | Lub. | 2,240 | Hamburg |
| 4 | A. V. Benter & Co. | " | 50 | Dunkirk |
| 5 | Hanseatic Maritime Agency | " | 300 | Bremen |
| 5 | London Oil Storage Co. | " | 8,000 | Antwerp |
| 5 | Anglo-American Oil Co. | " | 794,930 | New York |
| 5 | " " | Lamp | 2,143,260 | " |
| 6 | Mercantile Lighterage Co. | Lub. | 6,000 | Philadel. |
| 6 | British and Foreign Wharf | Lub. Gr. | 300 | Antwerp |
| 6 | Lubricating & Fuel Oils Co. | Lub. | 4,100 | Hamburg |
| 8 | Hanseatic Maritime Agency | " | 40 | Bremen |
| 8 | Page, Son & East | " | 400 | Antwerp |
| 8 | C. Shaw, Lovell & Sons | " | 1,140 | New York |
| 8 | Scott's Wharf | " | 3,500 | " |
| 8 | Langley, Smith & Co. | " | 2,970 | " |
| 8 | Produce Brokers Co. | " | 4,800 | " |
| 8 | Worthington & Boler | " | 4,680 | Philadel. |
| | LIVERPOOL— | | | |
| 2 | Pickford's | Lub. Oil and Paste | 190 | Hamburg |
| 2 | D. Currie & Co. | Lub. Oil and Gr. | 1,440 | " |
| 2 | C. C. Wakefield & Co. | Lub. | 890 | " |
| 2 | J. Light & Son | " | 2,000 | New York |
| 2 | A. Hopps & Sons | " | 3,000 | N. Orleans |
| 2 | W. Gibson & Sons | Lamp | 2,050 | Boston |
| 2 | F. Schofield & Co. | Lub. | 2,600 | Baltimore |
| 3 | Liverpool Storage Co. | Lub. Resid. | 2,000 | Antwerp |
| 3 | C. W. Field | Lub. | 200 | " |
| 3 | Anglo-American Oil Co. | " | 18,520 | New York |
| 4 | Pickford's | Lub. Oil and Paste | 740 | Hamburg |
| 4 | H. Parry | Lub. | 50 | " |
| 4 | J. Light & Son | Lub. Gr. | 800 | " |
| 4 | Meade-King, Robinson & Co. | Lub. | 40 | Baltimore |
| 5 | " " | " | 31,320 | Philadel. |
| 5 | Crew, Levick & Co. | " | 72,490 | " |
| 5 | " | Lub. Gr. | 240 | " |
| 5 | Bramwell, Fern & Co. | " | 500 | " |
| 5 | " " | Lub. | 6,270 | " |
| 5 | Worthington & Boler | Lub. Gr. | 80 | " |
| 5 | " " | Lub. | 3,400 | " |
| 5 | E. Harrison & Co. | " | 18,000 | " |
| 5 | American Line | " | 1,200 | " |
| 5 | Stockdale & Do l | " | 8,960 | " |
| 5 | J. Light & Son | " | 400 | Ghent |
| 5 | Petroleum Products Co. | Lub. Gr. | 240 | Hamburg |
| 8 | C. C. Wakefield & Co. | Lub. | 360 | " |
| 8 | Pickford's | " | 560 | Antwerp |
| 8 | C. W. Field | " | 410 | " |
| 8 | Huxley & Co. | " | 200 | Ghent |
| 8 | Anglo-American Oil Co. | " | 31,640 | New York |
| 8 | W. Crawford | Lub. Gr. | 440 | " |
| June. | LIVERPOOL— | | | |
| 8 | Meade-King, Robinson & Co. | Lub. | 1,200 | Philadel. |
| 8 | " " | M. Colza | 80 | " |
| 8 | " " | " | 7,800 | " |
| 8 | " " | Lub. Gr. | 5,200 | " |
| | BARROW— | | | |
| 3 | Anglo-American Oil Co. | Lamp | 144,850 | " |
| 3 | " " | Benzine | 604,450 | " |
| 3 | " " | Naphtha | 773,080 | " |
| 3 | Asiatic Petroleum Co. | Benzine | 980,600 | Rangoon |
| | BOSTON— | | | |
| 8 | W. F. Beaumont | Lub. | 680 | Hamburg |
| | BRISTOL— | | | |
| 30/5 | C. Hill & Sons | " | 32,560 | New York |
| 2 | Ford & Canning | " | 21,260 | " |
| 2 | F. F. Fox & Co. | " | 4,000 | Antwerp |
| 3 | Heaton & Co. | " | 430 | " |
| 3 | Pickford's | Lub. Gr. | 1,640 | Hamburg |
| 3 | J. V. Barrett & Co. | Lub. | 350 | Antwerp |
| 3 | W. G. Clarke | " | 480 | " |
| 4 | First Anglo-Russian Oil Co. | " | 390 | Hamburg |
| 4 | Anglo-Bosphorus Oil Co. | Lub. Gr. | 130 | " |
| 6 | Pickford's | Lub. Oil and Gr. | 300 | " |
| 6 | " | Lub. | 120 | " |
| 8 | Ford & Canning | " | 400 | New York |
| 8 | Meade-King, Robinson & Co. | " | 2,300 | " |
| 8 | C. Hill & Sons | " | 880 | " |
| | GLOUCESTER— | | | |
| 4 | Bristol Steam Navig. Co. | " | 560 | Hamburg |
| | GRIMSBY— | | | |
| 29/5 | J. Sutcliffe & Son | " | 350 | " |
| | GOOLE— | | | |
| 30/5 | Goole Steamship Co. | " | 1,440 | Rotterdam |
| 4 | " " | " | 3,400 | Hamburg |
| | HARWICH— | | | |
| 2 | Great Eastern Railway | " | 480 | Antwerp |
| 5 | " " | " | 280 | " |
| | HULL— | | | |
| 2 | T. Wilson, Sons & Co. | " | 21,760 | New York |
| 2 | " " | Crude | 20 | " |
| 3 | Hanseatic Maritime Agency | Lub. | 240 | Bremen |
| 3 | Wilson's & N. E. Railway | " | 720 | Antwerp |
| 5 | " " | " | 240 | " |
| 5 | " " | Lub. Oil and Gr. | 1,940 | Hamburg |
| 5 | T. Wilson, Sons & Co. | Lub. | 2,000 | Stettin |
| 5 | W. Gilyott & Co. | " | 17,470 | New York |
| 5 | " | Lub. Gr. | 600 | " |
| 8 | Wilson's & N. E. Railway | Lub. | 320 | Hamburg |
| 8 | " " | " | 800 | Antwerp |
| | MANCHESTER— | | | |
| 30/5 | Diamond Lubricating Co. | Lub. Gr. | 2,940 | New York |
| 30/5 | G. B. Taylor | Lub. | 5,350 | " |
| 3 | D. Currie & Co. | " | 220 | Hamburg |
| 6 | Anglo-Mexican Petroleum Products Co. | Fuel | 1,999,390 | Norfolk, Va. |
| 6 | " " | " | 1,364,080 | P. Mexico |
| 8 | D. Currie & Co. | Lub. | 3,200 | Hamburg |
| 8 | J. T. Fletcher & Co. | " | 1,440 | " |
| | NEWCASTLE— | | | |
| 3 | Tyne-Tees Steamship Co. | " | 2,000 | " |
| 4 | " " | " | 2,000 | Antwerp |
| 5 | P. H. Matthiessen & Co. | " | 100 | Bergen |
| 5 | " " | " | 240 | " |
| | NEWPORT— | | | |
| 2 | M. Jones & Co. | Lub. Oil and Gr. | 630 | Antwerp |
| | PLYMOUTH— | | | |
| 2 | Bristol Steam Navig. Co. | Lub. | 80 | " |
| | SWANSEA— | | | |
| 5 | Bristol Steam Navig. Co. | Lub. Oil and Gr. | 720 | " |
| 5 | " " | Lub. | 210 | " |
| | GLASGOW— | | | |
| 1 | J. & P. Hutchison | " | 200 | Rouen |
| 2 | Anchor Line | " | 19,320 | New York |
| 3 | Clyde Shipping Co. | " | 4,050 | Antwerp |
| 3 | Maclay & McIntyre Co. | " | 21,800 | New York |
| 5 | Allan Bros. & Co. | " | 59,600 | Philadel. |
| 8 | Anchor Line | " | 32,000 | New York |

(*Concluded on page* 681.)

*From Lloyd's* June 11th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Iquique | San Francisco | L. June 3 |
| AMERICAN | New York | Antwerp | Pd. Lizard June 9 |
| APPALACHEE* | Philadelphia. | Sheerness | Pd. Delaware Breakw'r May 30 |
| APSCHERON | Kustendje | — | Pd. Dard. June 9 |
| ARAL | Tyne | New York | Pd. Cape Wrath June 8 |
| ARAS | Sabine | London | L. Norfolk, Va., June 9 |
| ARCA | Rangoon | Gibraltar | L. Pt. Said June 2 |
| ARES | Rotterdam | Malta | Arr. Lisbon June 2 |
| ARTHUR VON GWINNER | Kustendje | Antwerp | Arr. Algiers June 3 |
| ASHTABULA* | New York | London | L. June 4 |
| ASTRAKHAN | Tyne | Sabine | Arr. June 5 |
| AUREOLE | Barrow | Sabine | L. June 9 |
| AZOV | Arica | Callao | Arr. ab't May 25 |
| BAKU STANDARD | Portland | Philadelphia. | Pd. Barry Island June 8 |
| BALAKANI □ | Port Arthur. | Manchester | L. June 9 |
| BARNESON | San Francisco | London | L. Rio Janeiro June 3 |
| BATOUM | Amsterdam | New Orleans. | Arr. St. Michael's June 8 |
| BAYONNE | Venice | Kustendje | Pd. Dard. June 2 |
| BEACON LIGHT | Port Arthur. | Killingholme | L. June 7 |
| BEECHWOOD | Cienfuegos | Liverpool | Arr. May 26 |
| BLOOMFIELD | Kustendje | — | Pd. Dard. June 8 |
| BORJOM | Batoum | Dunkirk | Arr. June 5. In port June 9 |
| BRILLIANT (Br. Bq.) | Hong Kong. | New York | Arr. May 22 |
| BRILLIANT | Emden | New York | L. June 9 |
| BRITISH SUN | Philadelphia. | Hamburg | L. June 9 |
| BROADMAYNE | New York | Calais | L. June 8 |
| BUFFALO | Shanghai | San Francisco | L. May 28 |
| BULLMOUTH △ | Singapore | Gibraltar | L. Colombo June 8 |
| BULYSSES △ | Singapore | Woosung | L. May 31 |
| BURGERMEISTER PETERSEN | Sabine | Oxelosund | L. Norfolk, Va., June 1 |
| BUYO MARU | Rangoon | — | Arr. Colombo about May 27 |
| C. A. CANFIELD* | Tampico | Sabine | Arr. May 26 |
| CALCUTTA (Br. Bq.) | Yokohama | an Francisco | L. June 9 |
| CAMILLO | Port Arthur. | Killingholme | L. Norfolk, Va., June 8 |
| CAPTAIN A.F. LUCAS | — | — | T. U.S. Pacific |
| CARDIUM △ | Tyne | Suez | L. from off Malta June 9 |
| CARPATHIAN □ | London | Port Arthur. | Pd. Lizard May 31 |
| CASSIS | New York | Madras | L. Colombo June 6 |
| CASTOR | Soesoe | Singapore | Arr. June 5 |
| CAUCASIAN □ | Grangemouth | Galveston | Arr. June 8 |
| CHARLES E. HARWOOD | Sabine | Tampico | L. May 28 |
| CHARLOIS | New York | Rotterdam | L. June 7 |
| CHATHAM | Tuxpan | New Orleans. | Arr. May 31 |
| CHESTER | Antwerp | Sulina | Pd. Lizard June 8 |
| CHEYENNE | Tyne | Sabine | Arr. Norfolk, Va., June 10 |
| CIRCASSIAN PRINCE | — | — | T. W. Coast South America |
| CLAM △ | Singapore | Calcutta | L. June 2 |
| CLEARFIELD | Port Arthur. | Maddalena | L. May 20 |
| COMANCHEE | Sabine | London | Arr. May 22. In port June 10 |
| CONCH △ | Singapore | Calcutta | L. June 2 |
| CONRAD MOHR | New York | Christiania | Pd. Faerder June 6 |
| CORDELIA | Antofagasta. | San Francisco | Arr. June 6 |
| COWRIE △ | Balek Pappan | Singapore | L. June 5 |
| CURRIER | Boston | Guanica | 734 m. N. of Guanica May 21 |
| CYMBELINE | Port Arthur. | Antwerp | Pd. Prawle Point June 9 |
| CYRENA | Singapore | Berandan | L. June 8 |
| CZAR NICOLAI II. | Batoum | — | Pd. Dard. June 9 |
| DAGHESTAN | Genoa | Batoum | Pd. Constantinople, June 4 |
| DANUBIAN □ | Port Arthur. | Hamburg | Arr. Newp't News prev. to June 3 |
| DAYLIGHT (Br. Bq.) | Philadelphia. | Hiogo | Spoken May 13, 38 N., 43 W. |
| DELAWARE* | Sunderland | Tyne | Arr. Apr. 20. In port May 12 |
| DELPHIN | Rotterdam | Baton Rouge | Arr. June 6 |
| DERBENT | Antwerp | Batoum | Pd. Constantinople June 4 |
| DESABLA | Port Harford | Vancouver | Arr. June 8 |
| DEUTSCHLAND | Philadelphia. | Gothenburg | Pd. Delaware Breakw'r May 29 |
| DIAMANT | Amsterdam | Philadelphia. | Pd. Prawle Point June 10 |
| DONAX | — | — | Pd. Perim June 2 |
| EBURNA △ | Tyne | Malta | Pd. Dover June 6 |
| EDWARD L. DOHENEY | New York | Tampico | L. June 5 |
| EL LOBO | Lobitos | San Francisco | L. May 28 |
| EL SEGUNDO | San Francisco | Seattle | Arr. May 7 |
| EL TORO | New Orleans | Campana | Arr. Buenos Aires May 16 |
| ELAX △ | Novorossisk. | Rotterdam | Arr. Mar. 30. In port June 8 |
| ELBRUZ | Tyne | Amsterdam | In port June 8 |
| ELISE MARIE | Sabine | Flushing | L. June 5 |
| ELSINORE | San Francisco | Antofagasta. | L. June 1 |
| EMANUEL NOBEL | Batoum | Antwerp | Arr. June 4. In port June 9 |
| ENERGIE | Havana | New York | Arr. May 22 |
| ERIVAN | Spezia | Kustendje | L. June 6 |
| ESCALONA | Port Arthur. | Cherbourg | Arr. June 8. In w. com. June 9 |
| ESTURIA | Singapore | Pulo Sambon | L. June 9 |
| EUPION | Philadelphia. | Matanzas | L. June 10 |
| EUPLECTELA △ | Adelaide | Sydney | Arr. June 6 |
| EXCELSIOR | Philadelphia. | Hamburg | L. May 30 |
| F. A. TAMPLIN | London | Puerto Mexico | Arr. June 8 |
| FRANCE MARIE (Belgian Ship) | — | — | T. b'tw'n Tampico and Pt. Arthur |
| FUMI MARU | — | Yokohama | Arr. April 5 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port May 8 |
| GENESSE* | New York | Manchester | Arr. June 9 |
| GEORGIAN PRINCE | Port Arthur. | Stockholm | L. Norfolk, Va., June 5 |
| GOLDMOUTH △ | Colombo | Singapore | Arr. Mar. 27 |
| H. C. HENRY | Eagle Harb'r | San Pedro | L. Astoria May 5 |
| HAGEN | New York | Hamburg | Arr. May 9. In port May 25 |
| HAINAUT (Barge) | — | — | Arr. New Orleans about June 5 |
| HARPORT | Pisagua | San Francisco | Arr. May 2. In port May 21 |
| HAVRE | Singapore | Table Bay | L. May 23 |
| HELIOS | New York | Rotterdam | Off Eddystone June 10 |
| HERA | New York | Flushing | L. June 8 |
| HERBERT G. WYLIE | Tampico | Galveston | Arr. May 30 |
| HERMIONE | Portsmouth. | New York | Left June 4 |
| HESPERUS | San Francisco | Pisagua | L. May 22 |
| HORLEY | Baltimore | Tampico | L. June 6 |
| HOTHAM NEWTON | Batoum | Dunkirk | L. Benderegli June 8 |
| HYRCANIA | Sheerness | Port Arthur. | Pd. Lizard May 26 |
| ILLINOIS | Port Arthur. | New York | In port May 22 |
| IMPEROYAL | — | — | T. River St. Lawrence |
| IMPOCO | Kustendje | Savona | Pd. Dard. June 2 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | Pd. Scilly June 6 |
| J. B. AUG. KESSLER △ | Thames Haven | Rotterdam | Arr. May 18. In port June 8 |
| J. OSWALD BOYD | Tampico | Aransas Pass | L. April 15 |
| JULES HENRY (Fr. Bq.) | Kustendje | Marseilles | Arr. June 7 |
| JUNO △ | Palembang | — | L. May 27 |
| JUPITER | New York | Rotterdam | Pd. Dover June 9 |
| KANAKUK | San Francisco | Hong Kong. | L. May 28 |
| KASBEK | Batoum | Rouen | Arr. June 8 |
| KIOWA | Baton Rouge | Hamburg | L. June 4 |
| KIYO MARU | Valparaiso | Callao | Arr. June 12 |
| KREMLIN | Batoum | Thames Haven | Pd. Dard. June 6 |
| KURA | Kustendje | Hull | Pd. Sagres June 8 |
| LA CAMPINE | Antwerp | Sabine | Pd. Scilly May 28 |
| LA FLANDRE | Norfolk, Va. | Sabine | L. May 31 |
| LA HABRE | Port San Luis | Tocopilla | Arr. June 3 |
| LA HESBAYE | Antwerp | New York | Arr. May 27. In port May 29 |
| LACKAWANNA* | Manchester | Rotterdam | Arr. June 1. In port June 8 |
| LAMPO | Philadelphia. | Algiers | Pd. Gib. June 7 |
| LE COQ □ | Bordeaux | England | L. Pauillac ab't June 2 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LEDA | Hamburg | Chalmette | Pd. Dover May 27. In w.com. May 28 |
| LOKI | New York | Hamburg | Arr. Mar. 20. In port May 25 |
| LUCELLUM | Portsmouth | Port Arthur. | Pd. Needles June 6 |
| LUCERNA | Gemsah | Suez | Arr. June 5 |
| LUCIGEN | Abadan | Sheerness | Arr. Suez June 10 |
| LUCILINE □ | Rouen | Tyne | Arr. May 31 |
| LUMEN | Spezia | Kustendje | Arr. June 7 |
| LUTETIAN □ | Rouen | New York | Arr. June 10 |
| LUX □ | New York | Barcelona | L. May 26 |
| LUZ BLANCA | San Francisco | Payta | Arr. ab't June 4 |
| MAKKAVEI | Kustendje | Trieste | Pd. Dard. June 2 |
| MANNHEIM | Philadelphia. | Copenhagen. | Pd. Dunnet Head June 8 |
| MARGARETHA | Alexandria | Kustendje | L. June 6 |
| MASCONOMO | San Francisco | Muroran | L. May 18 |
| MASSASOIT | Singapore | — | Arr. Suez June 1 |
| MEPPEN | Kustendje | Brunshausen. | Arr. June 9 |
| METEOR | Batoum | Vladivostock. | Arr. ab't June 3 |
| MEXICAN PRINCE | Singapore | Soesoe | L. June 3 |
| MIJDRECHT | Rotterdam | Kustendje | Pd. Peniche June 3 |
| MINA BREA | San Francisco | Talara Bay | L. June 7 |
| MIRA | Port Arthur | Hammerfest. | L. Norfolk, Va., June 8 |
| MITRA △ | Barry | Cardiff | Arr. June 4. In port June 9 |
| MOHAWK* | Philadelphia. | Tampico | Pd. Delaware B'kwater May 30 |
| MOHICAN | Port Arthur | Swinemunde. | Pd. Butt off Lewis June 9 |
| MUREX △ | Balek Pappan | Hong Kong | Arr. May 30 |
| NARRAGANSETT | London | New York | Pd. Dover Jun. 10 |
| NATICA △ | Batoum | Singapore | L. Aden June 2 |
| NELSON | Santiago | Puerto Padre | 15 m. E. Santiago May 28 |
| NEW YORK* | Rotterdam | New York | 60 m. E. Lands End June 7 |
| NIAGARA | San Francisco | Woosung | L. June 2 |
| NORMAN BRIDGE | Galveston | Tampico | L. May 24 |
| OAKWOOD | Cienfuegos | U.K. or Cont. | L. June 7 |
| OBERON | Panama | Vanc'ver, B.C. | Arr. May 27 |
| OCEAN | Philadelphia. | Amsterdam | L. June 1 |
| OILFIELD | Gothenburg | Port Arthur. | Pd. Cape Wrath June 2 |
| ORIFLAMME □ | Novorossisk | Havre Roads | Pd. Dard. June 7 |
| OSAGE | — | New York | Arr. June 1 |
| OTTAWA* | London | New Orleans. | Pd. Sand Key May 29 |
| OURAL | Kustendje | Spezia | Pd. Dard. June 1 |
| PALEMBANG △ | Karachi | Abadan | L. June 5 |
| PATELLA △ | Singapore | Gibraltar | Arr. Suez June 10 |
| PAUL PAIX | Tees | Kustendje | Arr. June 8 |
| PAULA | Dantzig | New York | Pd. Cape Wrath June 4 |
| PAWNEE | Cuxhaven | New York | Arr. R'dam June 6 In port June 8 |
| PECTAN | Antofagasta | San Francisco | Arr. San Pedro June 6 |
| PENNOIL | Tyne | Philadelphia. | Pd. Cape Wrath May 31 |
| PETROLEINE | Panillac | Kustendje | Pd. Gib. June 5 |
| PETROLEUM | Sheerness | Portland | Arr. May 6 |
| PHOEBUS | Pisagua | San Francisco | Arr. June 3 |
| PINNA □ | Cardiff | Port Arthur. | Pd. Sand Key June 8 |
| PONUS | Calcutta | Mi-ike | L. May 5 |
| POTOMAC* | Liverpool | Sunderland | Pd. Dover June 9 |
| POWHATTAN | Barrow | New York | Arr. June 2 |
| PROMETHEUS | Iquique | Callao | Arr. ab't June 10 |
| PRUDENTIA | Trinidad | New York | Arr. June 8 |
| PURELIGHT | Port Arthur | Dover | Pd. Beachy Head June 10 |
| QUEVILLY (Fr. Bq.) | Rouen | Havre | Arr. May 31. In port June 7 |
| RADIOLEINE | New Orleans. | Cette | Arr. June 4 |
| RANELLA △ | Batoum | Shanghai | Arr. June 9 |
| RENDOVA (Br. Bq.) | Seville | New York | L. May 19 |
| RICHMOND | San Francisco | Seattle | L. May 21 |
| RION | Port Arthur | Foynes | L. Norfolk, Va., June 4 |
| ROCK LIGHT □ | Hull | New Orleans | Pd. Lizard May 26 |
| ROMANY △ | Rotterdam | Malta | Pd. Peniche June 6 |
| ROSALIND | Portsmouth | Port Arthur. | Pd. Sand Key June 7 |
| ROTTERDAM | Amsterdam | New York | 105 m. S. Brow Head June 9 |
| ROUMANIAN □ | New Orleans. | Hamburg | L. Newport News June 5 |
| ROUM'NIAN PRINCE | Port Arthur | — | L. May 30 |
| RUSSIAN PRINCE | — | Aransas | Arr. June [illegible] |
| SABINE RICKMERS | Hong Kong | Singapore | L. June 1 |
| SALAHADJI △ | Singapore | Sydney | L. Pulo Laut June 4 |
| SAMOSET | Bombay | Singapore | Arr. ab't May 28 |
| SAN ANTONIO | Puerto Mexico | Manchester | Arr. June 8 |
| SAN BERNARDO | London | Puerto Mexico | Pd. Dover May 27 In w.com. May 28 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | London | Jacksonville. | Arr. June 5 |
| SAN EDUARDO | Tuxpan | Puerto Mexico | Arr. May 31 |
| SAN FRATERNO | New Orleans. | Pola | Pd. Gib. June 10 |
| SAN GREGORIO | New York | Tuxpan | L. Sabine June 8 |
| SAN HILARIO | New York | Tuxpan | L. June 6 |
| SAN ISIDORO | New York | Tuxpan | L. May 27 |
| SAN JERONIMO | Thames Haven | Puerto Mexico | Pd. Sand Key June 10 |
| SAN JOAQUIN | Iquique | San Francisco | Arr. June 2 |
| SAN LORENZO | Trieste | Tuxpan | Pd. Sand Key June 3 |
| SAN MELITO | Puerto Mexico | Avonmouth | Pd. Key West May 31 |
| SAN RICARDO | Amsterdam | Galveston | Pd. Ushant June 2 |
| SAN SILVESTRE | Manchester | New Orleans. | Arr. June 10 |
| SAN TIRSO | Puerto Mexico | Manchester | 100 m. W. of Brow Head June 11 |
| SAN URBANO | Tuxpan | Philadelphia. | Arr. June 10 |
| SAN VALERIO | Galveston | Tuxpan | L. June 2 |
| SAN WILFRIDO | Hamburg | Tyne | Arr. June 9 |
| SAN ZEFERINO | Tyne | Puerto Mexico | Pd. Lizard May 28 |
| SANTA MARIA | Kahului | Port San Luis | L. May 22 |
| SANTA RITA | Hilo | Port San Luis | L. Honolulu May 22 |
| SATANTA | Karachi | Bombay | Arr. May 22 |
| SAXOLEINE | New York | Cette | L. May 27 |
| SEBASTIAN | Kustendje | Havre | Arr. Algiers June 10 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port June 8 |
| SEQUOYA | San Francisco | Moji | L. June 6 |
| SERVIAN □ | Port Arthur | Avonmouth | Pd. Fastnet June 10 |
| SHABONEE | San Francisco | Hong Kong | Arr. ab't May 29 |
| SILVIA | Port Victoria | Persian Gulf | Pd. Dover June 9 |
| SIOUX | Talara | Campana | L, Taltal June 3 |
| SIRIUS (Ger.) | Tyne | Kustendje | Pd. Dard. June 10 |
| SOCONY | New York | Port Arthur. | 15 m. S. Jupiter May 11 |
| SOYO MARU | Bombay | Abadan | L. May 18 |
| SPLENDOR | Savona | Baton Rouge | L. New Orleans June 7 |
| STAG | Antilla | London | L. May 24 |
| STANDARD | Montreal | Quebec | Arr. June 1 |
| STROMBUS △ | Port Arthur. | Killingholme | L. Norfolk, Va., June 8 |
| SULTAN VAN LANGKAT △ | Newcastle, N.S.W. | Balek Pappan | L. May 25 |
| SUNLIGHT (Br. Bq.) | Macoris | Rotterdam | L. June 2 |
| SURAM | Hull | Kustendje | Pd. Dover May 29 |
| SUWANEE* | Sunderland | Bristol | Arr. Mar. 10. In port June 9 |
| SVIET | Batoum | Odessa | L. May 22 |
| TASCALUSAH | Calcutta | San Francisco | Arr. May 5. In port May 20 |
| TATARRAX | San Francisco | Tientsin | Arr. June 7 |
| TEAKWOOD | New York | Killingholme | L. June 2 |
| TECUMSOH | New Orleans | Tuxpan | L. Tampa May 30 |
| TELENA △ | Gemsah | — | Arr. Suez June 10 |
| TEREK | Batoum | Copenhagen | L. Algiers June 10 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. In port June 4 |
| TEXAS | Antwerp | Port Arthur | Pd. Prawle Point May 28 |
| TIFLIS | Taranto | Port Said | Arr. June 3 |
| TONAWANDA* | Antwerp | New Orleans | Arr. Norfolk, Va., about June 1 |
| TRINCULO | Bilbao | Port San Luis | L. May 20 |
| TRINIDADIAN | Port Arthur | Tampico | 10 m. W. Egmout Key May 31 |
| TRITON | Rotterdam | New York | L. May 30 |
| TROCAS △ | Melbourne | Newcastle, N.S.W. | Arr. June 9 |
| TURBO △ | Rotterdam | Hull | L. May 8 |
| UNCAS | San Francisco | Hong Kong | L. Shanghai June 6 |
| VEDRA | New Orleans | Belfast | L. Norfolk, Va., June 8 |
| VILLE DE DIEPPE (Norwegian Barque) | Tyne | New York | Cl. June 6 |
| VITRUVIA | Thames Haven | Port Arthur | 200 m. S.W. Brow Head June 9 |
| VOLCANUS △ | Palembang | Singapore | Arr. June 8 |
| VOLUTE △ | Tyne | Novorossisk | Arr. June 5 |
| WABASHA | San Francisco | Moji | L. June 5 |
| WANETA | Galveston | New Orleans. | Arr. May 9. In port May 30 |
| WAPELLO | Philadelphia. | Avonmouth | L. June 3 |
| WASHINGTON | London | New York | Pd. Dungeness June 5 |
| WEEHAWKEN | Antwerp | Tyne | Arr. May 23 |
| WIELDRECHT | Kustendje | Rotterdam | Arr. June 7. In port June 8 |
| WILLKOMMEN | Philadelphia. | Copenhagen | Arr. June 8 |
| WINAMAC | San Francisco | Antofagasta | L. May 15 |
| WOTAN | New York | Hamburg | Arr. June 9 |

# The Petroleum Review.

*Founded by PAUL DVORKOVITZ.*

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## THE PETROLEUM REVIEW.

*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

*The Editor would esteem it a favour if readers, when communicating with the various firms advertising in our pages, would mention the* Review.

*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### The Anglo-Roumanian Petroleum Company's Success.

We would congratulate the managing director (Mr. George Tweedy) and his colleagues on the board of the Anglo-Roumanian Petroleum Company, Ltd., upon the very successful year they have recently concluded. In spite of the general disturbance to the petroleum industry of Roumania during the past year, due to the unrest in the Balkans, the company's production of crude oil has exceeded one thousand tons per month, which is highly satisfactory. It is evident, however, that in the not distant future the output of crude oil will show a material increase, for several of the company's new wells are near production, while in the Gropi and Runcu districts of Roumania, drilling operations are proceeding most satisfactorily. Out of its profits for the twelve months of over £26,000, the directors liberally allow for depreciation and then are not only able to recommend a dividend of five per cent. upon the ordinary shares of the company, but to carry forward approximately £4,000 after placing the sum of £8,500 to a reserve account. From the knowledge we have of the general position and prospects of the Anglo-Roumanian Company we have every reason to believe that it has now entered the list of regular dividend-paying oil enterprises.

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### America's Foreign Kerosene Trade.

The official statistics showing America's foreign trade in illuminating oil, and covering the nine months of the fiscal year, reveal several interesting facts. In the first place the foreign demand for illuminating oil during the nine months of the present fiscal year has been unprecedented, for a total of over 853,000,000 gallons has been exported, representing a value of $55,000,000. The figures for the corresponding period of 1913 were 778,000,000 gallons and $47,000,000 in value, while for the preceding nine months of 1912 the quantity was 5,000,000 gallons less and as many million dollars. Another interesting fact in the statistics is that the United Kingdom has during the past nine months taken larger quantities of American illuminating oil than ever before, the total amount being 146,000,000 gallons, or an advance of 17,000,000 gallons on the figures for the corresponding period of 1913. The Netherlands stands as the next largest consumer of American kerosene, with a total for the nine months of nearly 120,000,000 gallons, while third on the list figures Germany, with a nine months' import of American lamp oil to the extent of just under 60,000,000 gallons. This latter figure, however, unlike the others, shows a decided decrease against the quantities hitherto imported, for during the nine months of the last fiscal year they reached 88,000,000 gallons. Japan, with a nine months' import of 59,000,000 gallons of American kerosene, is evidently using less American oil than formerly, for during the corresponding period two years ago no less than 82,000,000 gallons were imported. On the whole, however, America's foreign kerosene trade is extending in a very decided manner.

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### California and Its Production.

The crude oil output of the Californian fields continues to increase, and the total yield for April of almost 8,700,000 barrels shows a greater daily average than the output for the preceding month, which in itself was a record. There is no doubt about it that at the present time California is producing more oil than it is possible to market, and the outstanding feature of the whole situation is that the more recent completions in the shape of large wells have been of the high-grade order. Readers will recollect that at one time the Californian State was looked upon for the most part as a producer of low-grade oils, but recent years have wrought a drastic change, for to-day many of the wells furnish a crude which nearly comes up to the old Pennsylvanian Standard. With a view to curtailing the production of the high quality product, the Standard Oil Company has reduced its price to the producers, and at the same time has emphasised its opinion that it will be better for the producers themselves if they curtail the production of the high-grade oil as much as possible. Fortunately the two large producing wells which have been yielding high-grade oil are now sanded up, and thus temporarily taken off the list. Nevertheless there is in store in California to-day nearly 50,000,000 barrels of crude oil, a very large portion of which is high-grade crude. Still the production seems to be increasing, and it is stated that when the figures for May are published it will be found that the total yield of the State for the month has exceeded 9,000,000 barrels. And this in the face of the rumour which one persistently hears on many sides that the supply of crude oil is not equal to the demand. Would that some of the critics would study facts.

## THE BAKU WORKERS' STRIKE.

### Crude Oil Production almost entirely stopped.

THE Baku oil workers' strike continues, and gives every promise of continuing indefinitely. The proclamation which has been circulated among the men urges the workers to continue to strike until their position has been improved. The hour of decisive battle (says the proclamation) has arrived ; we shall not commence work until our general demands are fulfilled.

In reply to the proclamation, the Naphtha Producers have issued a notice which states that all demands relating to conditions of employment, such as wages, quarter money, quarter requisites, leave of absence with pay, and such like, do not require reconsideration, and last year's rates remain without change. Gratuities this year will be paid at same rate as last year, but the demand for payment, for time of strike, of wages, quarter money and requisites, is absolutely refused.

All remaining demands are refused, as their granting is beyond the power of the company.

At the same time the workmen are warned that those not turning out to work within three days of the time of stoppage of work will be considered discharged.

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## THE SPIES PETROLEUM COMPANY'S DIVIDEND.

WE officially learn that the directors of the Spies Petroleum Company, Ltd., are recommending a final dividend of one shilling per share free of income tax for the past year, making a total dividend at the rate of 17½ per cent. for the twelve months.

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**Over-production in California.**—At the present time there is an over-production of crude oil in California, and it is owing to this fact that the Standard Oil Company has reduced its price for high-grade oil. The Standard Company's stock of this oil at the present time is over 15,000,000 barrels, all of which quantity is stored in steel tanks. The company states that it is hoped that this curb in the price will result in the curtailment of production in the high-grade fields.

## SITUATION DESIRED.

CHARTERED SECRETARY, speaking Russian, French, and German, expert in company work and management, is willing to undertake economical and efficient administration for one or more companies.—Apply, L. H., care of PETROLEUM REVIEW.

DR. T. O. BOSWORTH,
D.Sc. (London), M.A. (Cambridge), F.G.S.
*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*
**Consulting Geologist.**
*(Formerly of His Majesty's Geological Survey.)*
OFFICE: 12, ST. GILES STREET.
NORTHAMPTON.

## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended June 13th was 61,000 poods.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended June 14th was 206,620 poods, or about 3,333 tons. The total production for the year from January 14th to June 14th was 6,035,980 poods, or about 97,355 tons. The total production for the corresponding period last year was 6,374,995 poods, or about 102,822 tons. Price of crude oil at Baku is now 43 copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended June 13th was 23,295 poods, or 376 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended June 14th was 31,400 poods.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended June 13th was 78,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended June 13th was 19,061 poods (307 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended June 13th was 7,870 poods (127 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended June 14th was 12,087 poods, or 195 tons.

BIBI-EIBAT OIL COMPANY, LTD.—Production for week ended June 14th, 78,233 poods, or 1,262 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended June 13th, 61,150 poods, or 986 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The total production for week ended June 9th was 360,343 poods, or 5,812 tons. Corresponding period last year, 2,015 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended June 13th was 3,730 poods, or 60 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended June 13th was 16,428 poods (265 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended June 13th was 1,510 poods, or 24 tons.

URAL CASPIAN OIL CORPORATION, LTD.—Production for the week ended June 17th, 125,400 poods, or 2,023 tons.

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## GALICIAN PETROLEUM PRODUCTION DURING APRIL.

THE total production of petroleum on the Boryslaw-Tustanowice oilfields during April amounted to 80,090 tons, as against 82,880 tons produced in March, thus showing a decrease of 2,790 tons. Of the total production 5,962 tons were obtained on the Tustanowice fields, 19,640 tons on the Boryslaw fields and 820 tons at Mraznica.

In addition to the above production there were obtained 1,030 tons of casual oil. The production on the Schodnica oilfields amounted to 2,920 tons and on the Urycz fields to 640 tons.

# THE OIL TRADE OF BRISTOL.

## The Anglo-Mexican Petroleum Products Company Opens its New Installation at Avonmouth.

On Thursday afternoon the Anglo-Mexican Petroleum Products Company, Ltd., completed another link in that great chain which is destined to make it one of the largest distributing concerns of petroleum products in the world, by the formal opening of its new bulk oil installation at Avonmouth, port of Bristol.

It was a memorable day in connection with the oil trade of Bristol—memorable alike to the Docks Committee and to the Anglo-Mexican Company, for to both it meant much. The port of Bristol is justly proud of its docks, and it is but a sign of the times that its petroleum import trade, now aggregating 140,000 tons per annum, is to receive the stimulating effect of the presence in its midst of a bulk oil storage installation for the storage of Mexican petroleum products.

But the present week is also memorable in another direction, for it has seen the arrival and discharge at the new Avonmouth Docks of the largest vessel which has yet entered the port of Bristol—the "San Melito," one of the largest oil tankers afloat for the transport of Mexican oil.

Photo by] The Lord Mayor of Bristol inspecting the "San Melito."—Mr. R. P. Brousson and Mr. J. Purdy immediately on his right. [Topical

As the great vessel lay alongside the docks on Thursday afternoon, she formed the centre-piece of a picturesque scene. Gaily bedecked with international flags from her fore and aft masts, and looking fresh from her first return trip across the Atlantic, the "San Melito" dwarfed the shipping in the adjoining docks, her particularly cleanly appearance standing in strange contrast to one of her ocean neighbours which was bunkering coal (and discharging clouds of coal dust) near by. The "San Melito" made a splendid trip to and from Mexico, and it says much for the exaggerated stories told of the general disturbance to the trade of that country when it is mentioned that the vessel took on her 15,000 tons of oil cargo without the least delay, and arrived at Avonmouth at the time appointed.

At Thursday afternoon's inspection, the Lord Mayor of Bristol, wearing his chain of office, was received on the "San Melito" by Mr. John Purdy and Mr. R. P. Brousson (directors of the Anglo-Mexican Petroleum Products Company) and together with other civic dignitaries conducted round the great ship, Captain Tulley of the "San Melito" explaining the general equipment of the vessel, which at that moment was discharging her cargo into the storage tanks some distance away.

Much interest was centred in the pipe connections on shore, the usual flexible hose being entirely dispensed with, a nine-inch steel pipe being coupled up to the main discharge pipes of the vessel and slanting to the level of the shore pipes—an ingenious contrivance capable of being operated at enormous pressure.

After an inspection of the storage installation and pumping arrangements, the details of which were explained by Mr. Purdy and Mr. Brousson, the guests then assembled in a marquee which had been specially erected for the occasion on ground which had been levelled for the erection of another huge bulk storage tank.

Mr. John Purdy (director of the Anglo-Mexican Petroleum Products Company) took the chair, and he was supported by the Lord Mayor of Bristol, Mr. R. P. Brousson (director of the Anglo-Mexican Petroleum Products Company), Mr. Briggs (Messrs. S. Pearson & Son, Ltd.), Mr. Paul Block, Mr. T. H. Oldham, Mr. D. C. Jolley, Mr. J. Wood (all representing the Anglo-Mexican Company), Alderman H. W. Twiggs (chairman of the Docks Committee of the Port of Bristol), Sir William Howell Davies, M.P., Dr. P. Dvorkovitz (London), Mr. T. A. Pearce (Assistant Docks Engineer), Mr. Edmund J. Taylor (Town Clerk), Commander Hart, R.N., Captain Tucker (Marine Superintendent of the Anglo-Mexican Petroleum Products Company), Mr. R. W. Delacour (Publicity Manager of the Anglo-Mexican Company, and who most efficiently carried out all the arrangements), Mr. Mackenzie (Bristol City Engineer), and others, a large number of City Councillors, who are members of the Docks Committee, also being present.

After the company had partaken of light refreshments, Mr. Purdy submitted the toast of "The King," which was heartily received.

He then said he had a very pleasing duty to perform, and that was to ask the guests to drink to the health of his Worship the Lord Mayor of Bristol and the Aldermen of the City. On behalf of the Anglo-Mexican Petroleum Products Company, he gave them all a hearty welcome that afternoon, and was pleased to think they had taken advantage of the opportunity of inspecting one of the largest ships of his company, and the bulk installation which was approaching completion. It was to his colleagues and himself a pleasure to know that the "San Melito" was the largest ship that had ever been into Bristol docks, and also that she had carried the largest cargo of oil that had ever entered the port. The progress which had been made in regard to the imports of petroleum products was very large, and in opening that installation his company hoped they would take their share of the business, as well as doing much to improve the prospects of the port by increasing the trade in oil products.

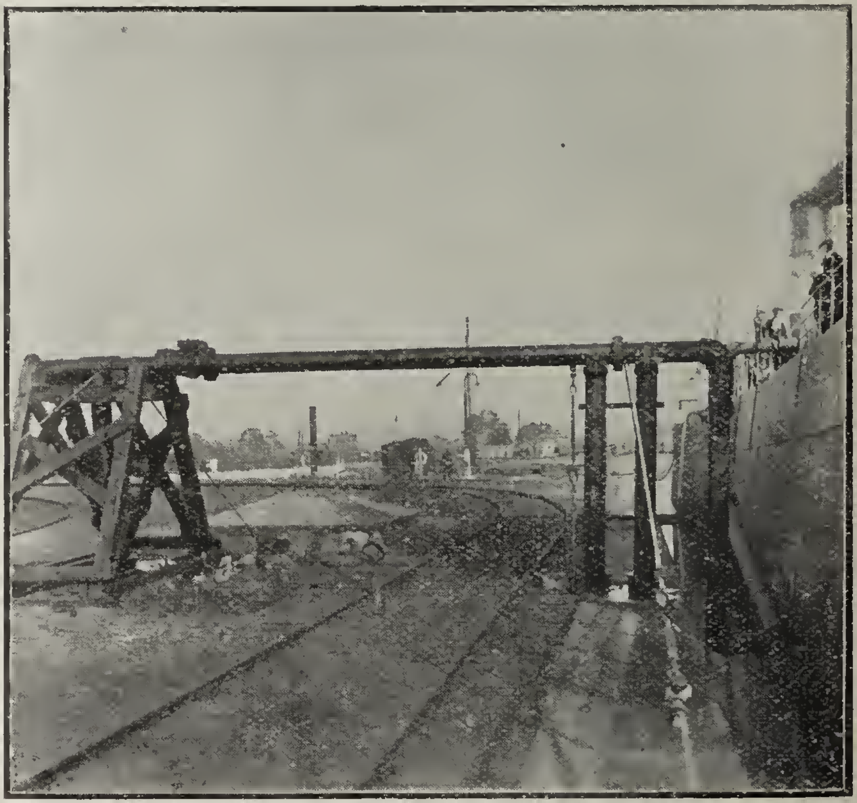
The "San Melito"—

The toast having been enthusiastically honoured,

The Lord Mayor responded in a very appropriate speech. He said he was very much obliged to the guests for the way in which they had received the toast. They would all know that as a Corporation their members were deeply interested in all that appertained to those docks, and so they ought to be when they considered the time, thought, and money they had expended upon them. When they began the construction of those docks it was largely a matter of faith in the future, for many citizens were divided as to the safety of the venture, but those had been won over to the opinion of the majority of the Council, who sanctioned the forward policy which for a good many years they had pursued. The city of Bristol had learned to look ahead and around in order to see the advantages which came within its reach. There was one thing which they in Bristol suffered from, and that was a want of enterprise ; they had not that large view of things which sometimes obtained in the northern cities of their country. But he was pleased to think that so far as Bristol was concerned, it had done its duty in regard to those docks and he trusted that their action would lead to greater enterprise, greater boldness, and greater progressiveness on the part of those interested in every department of commercial enterprise. The construction of those docks had cost great sums of public money, but he thought the members of the Docks Committee had done what was right, for what they had seen that day was a good augury, and he believed that the lease which had been made by the Corporation to the Anglo-Mexican Petroleum Products Company would not only be of advantage to the city itself but of greater advantage to the company at whose invitation they were assembled. When he looked at that gigantic "San Melito" discharging her cargo of oil into those immense storage tanks, he could not but think what a remarkable change had overtaken the conditions in which they lived. Years ago he thought that the world had about attained its apex, and that they had found out everything worth knowing. They marvelled at the limit of knowledge of the generations that had gone before. But to-day things were developing in all kinds of ways that it seemed to him that their successors would look upon the people of the present day as the most benighted people of the world.

The citizens of Bristol would naturally be greatly interested in the coming of that great ship to their docks, bringing as it did the largest cargo of oil that had ever entered the port. The Anglo-Mexican Company could take it from him that they—like everyone else who took advantage of the Bristol docks—that the Docks Committee would afford every possible facility in receiving ships and in the handling of their cargoes, and by that means he hoped every company associated with the import trade of Bristol would speak of the praises of the Avonmouth docks to new clients, who like themselves would also be welcomed to Bristol.

Mr. R. P. Brousson next submitted the toast of "Success to the Port of Bristol," coupling with it the name of Alderman H. W. Twiggs, J.P., the chairman of the Docks Committee. He said that the Anglo-Mexican Petroleum Company had six other bulk installations in course of construction in this country, and one of them—at Hull—would be opened in a few weeks' time. The installation whose opening they were celebrating that day had been constructed by Messrs. S. Pearson & Son, Ltd., for the company with which he was associated—the Anglo-Mexican Petroleum Products Company, Ltd. The site covered an area of about ten acres, and the present programme of tankage comprised two 90-ft. diameter storage tanks, each capable of holding 45,800 barrels, and two 75-ft. tanks, each holding 26,800 barrels, making a total of 145,200 barrels, or 21,160 tons. The storage for liquid bitumen for road dressing, which was known throughout the country as "Fluxphalte," was provided for in two 75-ft. tanks, with a total capacity of 53,600 barrels. Two smaller tanks were erected for kerosene, and the future programme provided for further kerosene and motor spirit accommodation, together with lubricating oil



—and the shore pipe connections.

(*Continued on page 702.*)

# THE BRITISH GOVERNMENT AND OIL FUEL.

## The Anglo-Persian Agreement forms the Subject of an Important Debate.

## Mr. CHURCHILL and the "PETROLEUM REVIEW."

The Anglo-Persian oil-fuel agreement formed the subject of an important debate in the House of Commons on Wednesday evening, but was eventually carried.

The Commons went into Committee for the purpose of considering the following motion :—

> "That it is expedient to authorise the issue out of the Consolidated Fund of such sums not exceeding in the whole two million two hundred thousand pounds, as are required for the acquisition of share or loan capital of the Anglo-Persian Oil Company."

Mr. Churchill, in making the motion, said :—To-day we are not considering whether it was or was not a good thing to lay down and adapt nearly 250 warships of different classes for the Fleet wholly or partly dependent upon oil. At the proper time if we were challenged I should be very glad to discuss that question. On the Naval Estimates the wisdom of what has been done can be debated and voted on. But now we are concerned solely with the best means of securing at a reasonable price an abundant and sure supply of oil for vessels which have already been built or begun. I hope anyone who has an adverse opinion on the general question will reserve that opinion, and without prejudice to it will address his mind to this specific question : granted that the Government must buy a certain large quantity of oil every year for a great many years to come, is this a good and economical way of getting some of it ? Is this a legitimate method for a modern Government to adopt ? Is the bargain which we have made sound on its merits ? Are there any special reasons which even if these questions are answered satisfactorily should debar us from taking such a course ?

We do not intend to make ourselves wholly dependent on this Anglo-Persian oil supply, or indeed upon an oil supply from any particular quarter. We shall continue to depend upon coal as the main motive power of our Fleet for many years to come. We shall continue to purchase a large portion of our supplies of oil from other parts of the world, from private companies of different character—some independent and some not, some in British territory, some in foreign countries, some under British control, some under foreign control. We shall continue to develop by all practical means our home supply of shale oil so far as it can be got at a reasonable price. We shall do our utmost to encourage the scientific experiments now being carried out for the extraction of liquid fuel from shale and coal. The Government will make inquiries, and if it is thought useful will stimulate the experiments by the offer of a substantial prize or prizes for the development of a process which will yield liquid fuel from coal at an economic price. We shall also support as far as is justifiable the search for and development of oilfields in the British Empire. If the Anglo-Persian oilfields were to be the only source of our supply we could not feel the position to be wholly satisfactory, though we believe the development of that field would be sufficient to enable us to obtain our whole supply from that quarter, and probably more than we shall need for many years. Yet if we were to rely upon it entirely we should not be carrying out the policy I indicated to the House last year and the year before of varying and spreading the sources from which we can purchase and on which we can rely.

Let me clear out of the way the great military argument. There never has been and there never will be any shortage of oil for the British Government in peace or war provided you do not mind how much you pay for it, and provided you retain the power to protect it in transit. The supply of oil in peace depends upon price, in war it depends upon price *plus* force. If the Government was ready, as undoubtedly any Government would be ready, in war to pay any price for oil, it would dominate the world market and would obtain abundant supplies from all parts of the globe except the territory of the enemy or the territory under his control. If we have the command of the sea which is vital to us in this as in other matters we can bring what oil we require to this island at our convenience. It would not make any difference whether the enemy declared oil to be contraband or not. His declaration would remain a dead letter unless or until he was able to make it effective by force. Unless he were able to stop on the seas oil ships attracted to this country by the high prices, his calling oil contraband would make absolutely no difference to us or to it. The oil would come just the same, and it would burn just as well. If, on the other hand, he were able to stop the oil ships and enforce his doctrine of contraband, he could also stop the grain ships, the meat ships, and the ships bringing cotton and all other varieties of raw material to this country, and of course he could very quickly bring the war to an end by that means. Unreasonable definitions of contraband by the enemy have to be made good by force, and they only acquire validity in so far as they can be made good by force. (An hon member.—"What about the Declaration of London ?") We are not discussing the Declaration of London this afternoon, and I hope we shall not have to complicate what is an extremely simple matter by the recurrence of that complicated and elaborate discussion. If we cannot secure the access to this island of oil ships, we cannot secure the access to this island of the whole great volume of our trade on which we shall depend in war as in peace if we are to maintain ourselves effectively. The proposition that the Navy should be able to keep our ports open and to keep our trade routes safe in time of war for all the vast merchant fleets which traffic with this island, and yet should lack the power to bring in the comparatively few but, from our point of view, specially interesting oil cargoes is a proposition which is naturally inherently and, if need be, demonstrably absurd. In war our policy is to protect our trade by destroying the armed force of the enemy wherever found. If we cannot do that we cannot do anything, and there is no use arguing about the military aspect except on the basis that we have that power. If we have that power, if we can destroy the armed force of the enemy menacing our trade in every sea—that is the arrangement on which we are now proceeding—then the greater covers the less, and all vital supplies may be assumed to reach this country with tolerable regularity.

Any difficulties we may experience on our trade routes will occur at the very beginning of a war, particularly if it begins by surprise. Every day the war continues we shall become stronger on every trade route, and our opponents will become weaker. Here let me remind the Committee that I am assuming that the difficulties, if any, will occur in the early days, and that we have already built up a large oil reserve sufficient for all war purposes for months to come, I mean for many months from the beginning of a war. Therefore, there are no grounds in the opinion of the Admiralty for misgiving on the score of an oil famine in this country in time of war, and I hope we shall not hear in this debate any of the nonsense I have read in some of the newspapers about the British Empire becoming dependent upon a slender pipeline running through 150 miles of mountainous country and barbarous tribesmen. I hope we shall not have any more of that. The British Empire will depend hereafter, as it has depended heretofore, upon the wealth of this country and upon the power of its Fleet. The main basis of our power will not be altered in any respect by anything which is connected with the proposals we now put before the Committee. So much for the general military argument, which I hope may be carefully studied and considered, for although it is simple, I think it will be found to be complete. I turn to the special difficulties. Are there any special difficulties in regard to the sea route from Persia to this country ? We have, of course, the choice of going through the Suez Canal or going round the Cape, a choice in which we should, of course, be influenced by circumstances. It takes about 14 days longer to go round the Cape, and the Suez Canal dues are about equal to the extra cost in maintenance and fuel. It is quite possible that ships will, from the beginning, go round the Cape. At any rate, they would round the Cape if there were any special reason to deflect them there. The only real difference to us would be that there would be two or three more cargoes afloat at any one moment. Along the Cape route it would be exceptionally easy to protect trade because of the disposition of our squadrons and bases, and the enemy's vessels would find it exceptionally difficult to maintain themselves on that route for the purpose of attacking our trade. We have got the control of this Cape route anyhow, and our arrangements are made with that intention, and we believe they will have that effect. There will therefore be no additional expense, and no new dispositions would be required in consequence of oil ships occasionally traversing this route either in peace or in war.

The problem of oil supplies for the Fleet is not primarily a problem of war: it is a problem of peace and a problem of price. Nobody cares in war time how much they pay for a vital commodity, but in peace—that is the period to which I wish to direct the attention of the Committee—price is rather an important matter, and as we hope there will be many years of peace to every week of war, I cannot feel that we are not fully justified in taking up the time of the Committee in considering how in years of peace we may acquire proper bargaining power and facilities with regard to the purchase of oil. The price of oil does not depend wholly or even mainly on the ordinary workings of supply and demand. The demand for oil is steady and it is growing. There is a great potential demand behind that which has already manifested itself, although I think the demand for oil has been severely checked by the high prices; the demand cannot subside—at any rate suddenly subside—because once people are convinced about the use of oil for engines, or steamships, or industries of any kind, it is not easy, and frequently it is not possible, for them to go back to coal or some other fuel substitute. This is particularly true of warships. Let us have no illusions on this point—warships built to be driven by oil only can never be driven by coal or adapted to be driven by coal. The oil consumer is in a rather unusually weak position in regard to the purchase of oil, particularly the Government purchaser. In the wide expanse of the oil regions of the world two gigantic corporations, one in either hemisphere, stand out predominantly. In the New World there is the Standard Oil Company, against which the Cowdray interests maintain by warfare and negotiations a very powerful but semi-independent life. In the Old World the great combination of the Shell and Royal Dutch with all their ancillary and subsidiary branches has practically covered the whole ground and has even reached out into the New World, and against these, among British companies that have maintained a completely independent existence, the Burmah Oil Company with its offshoot, the Anglo-Persian Oil Company, is almost the only noticeable feature.

Mr. S. Samuel asked whether the right hon. gentleman had forgotten the Gouria Company, the Trinidad companies, and the Roumanian companies, and other numerous companies which belonged to British subjects.

Mr. Churchill.—Two of the sources of supply which the hon. member refers to are already in the hands of the Shell Company and companies associated with it.

Mr. S. Samuel.—I must contradict that. In Trinidad there are at least half a dozen companies who would be glad to have the assistance of the Government.

Mr. Churchill.—I recognise the hon. member's special knowledge of this subject, but he must allow me to state my case. I am afraid we cannot look at it from the same point of view, and I must state the case from the point of view of the British Government. When I assumed office at the Admiralty I found that after making allowance for the greater energy of oil the Admiralty had been able for a long time to buy oil on terms which worked out approximately equal to the cost of coal. It was on this basis that my predecessors for the last nine or ten years acted, and it was on this basis with the full agreement of the Admiralty Board that I became responsible for substantial additions to our oil-burning fleet. Since then we have experienced together with private consumers a long, steady "squeeze" by oil trusts all over the world, and we have found prices and freights raised steadily against us until we have been forced to pay more than double what a few years ago we were accustomed to pay.

Our feeling is that after our experience of the last few years we ought without delay to put ourselves in a better position with regard to the future. I can assure the Committee that we have not acted with precipitancy in this matter. For many years it has been the policy of the Foreign Office, the Admiralty, and the Indian Government to preserve the independent British interest on the Persian oilfield, to help that field to develop as well as we could, and above all to prevent its being swallowed up by the Shell or by any foreign or cosmopolitan company. Ever since the days of Lord Selborne and the hon. member for Chelmsford at the Admiralty the Department has looked to Persia as a promising source of naval fuel. Indeed, it was at the instance of the hon. member for Chelmsford and by his remarkable foresight that Lord Strathcona was induced to come forward and to ensure the maintenance of the commercial independence and British character of the company. We recognise in the Persian field a necessary source of supply over a long period, and we recognise in it the best source from which we can obtain the best kind of oil. We knew it was in constant danger of being absorbed by some combination and welded in an ever-widening price ring. We knew that by our contracts we should confer on the Anglo-Persian Company an immense advantage, which, added to their concessions, would enormously strengthen the company and increase the value of their property. If this resulted from the necessary action of the State, why should not the State share in the advantage it created? If in any case we had to go so far, why should we not go a step farther? Was it not wiser and more provident on every ground—and indeed equitable—to acquire control of an enterprise we were bound to help and to encourage, which we alone could sustain and on which to a large extent we must rely? That was the process of reasoning by which the Admiralty and the Cabinet were drawn from the making of a simple supply contract to the definite acquisition of control over the company and its concessions. It is a year since I foreshadowed this policy in principle to the House. We then had ample information on which we could have acted, and if we had been a private company we should have acted as we now ask Parliament to authorise us to act. But in such a matter a Government must have authority which can be quoted, so we sent a Special Commission to Persia to make a new and independent examination of the whole property of the company and the general character of the Persian oilfields. The Commission was headed by Admiral Slade, who had been previously commander in the East Indies, and whose work in various directions outside purely naval matters is well known, and it comprised two of the best oil and geological experts that we could find who had no previous connection of any kind with the Anglo-Persian oilfield—Professor Cadman and Professor Blundstone. The report has been presented to the House in the Blue-book, and I submit that it constitutes a complete case for action.

It appears that the northern field in the neighbourhood of Shustar will alone be sufficient to meet the Admiralty requirements for a long period, but besides that field we obtain control for nearly 50 years of the oil potentialities of a petroliferous area about half a million square miles in extent, or nearly as big as France and Germany put together. The oozings of oil to the surface over the whole of that region are fully described in the report. They abound, not only over the neutral, but over the British zone. Some of them are not inland but close to the sea. Others are close to the Indian border, and quite apart from the proved value of the oils now working, which are themselves sufficient to meet the definite needs of the Admiralty contract, we are entitled to look with reasonable confidence to the development of this vast region of oil territory in the future, of a character which must exercise a most important influence upon the general oil situation. The Committee expressed the opinion that the whole concession, judiciously worked, would probably safeguard the fuel supply of his Majesty's Navy. That is a cautious and conservative opinion publicly made by responsible persons of expert knowledge. In view of that opinion, and of all the other facts which I have submitted, surely we are justified in relying upon the Persian oilfield, not for the whole, but for a portion something less than half of our necessary supplies, It cannot be argued that the acquisition by Great Britain of legitimate commercial interests in this quarter of the world will produce any untoward effect on our foreign relations, nor that it has led to any bargaining or entanglement, nor that the solution of any difficulties which exist in Persia will be aggravated or complicated in consequence of this transaction. My right hon. friend the Secretary of State for Foreign Affairs will deal authoritatively with this aspect of the question, but I am bound to address myself to one particular aspect of it—namely, a criticism which has not yet been made, but which must be faced. This is the criticism. Are you not putting yourself in the hands of a great military power in regard to a vital supply for the British Navy ? What is the answer to that ? First, as I have said, the main dependence of the British Navy will be for many years on coal ; second, that portion of the Navy—a most important portion—which depends upon oil will be only partially dependent upon Persian supplies, and only so dependent on those supplies for the purpose of price bargaining in time of peace ; third, between us and even this partial dependence we have in the case of war the shield and buffer of the great oil fuel reserve, in itself sufficient to carry us through a long period of war, probably the whole duration of a modern war, and certainly the whole of the critical and initial period of a war. The worst that could happen to us from a national point of view would be the attack of a great military power, not upon our territory nor even upon our sphere of influence, but upon a British commercial company in a foreign country in which we had a governing interest. There is no reason to assume any such contingency, but if such a contingency did occur, then it would not occur out of anything connected with oil or rather out of anything connected with this transaction. It would only occur as an incident in a world-wide war, and as an incident which would in no way cripple our power of carrying on that war. You cannot try and condemn the Admiralty scheme for getting oil by reference to those remote speculative, and I hope I have proved non-vital, contingencies. From the naval point of view the only consequence of the wiping out of the Persian oilfield as a field upon which we could draw would be that we should have to pay a higher price for the rest of our oil than is fair or than we hope to pay. That is to say, we should only in the worst extreme from the Admiralty point of view, suffer consequences which will be our ordinary and normal condition unless this measure or some such measure is taken.

What applies to a great power or the cataclysm of a general war applies with even more force to minor disturbances by the local tribes. We are told that the tribesmen are wild and that the Persian Government are weak. The investment of capital, the development of roads, railways, and industries in which the tribesmen and the Persian Government are both interested, and from which both profit, ought to tend to make the Persian Government strong and the tribesmen tame. At any rate, it is a perfectly healthy, legitimate, and moral process. How else is the country to progress except by the development of its resources and the gradual civilisation of its areas ?

The Admiralty must have power to control an oilfield somewhere, and where else should we go in practice at the present moment ? There is absolutely no other practical alternative at the present time. Neither Trinidad nor Egypt could ever bear, so far as we now know, the weight of our demands, and many years must pass before the Scottish shales can produce the quantities at the price we need, although they do contribute a very valuable contribution to our oil supplies. All sorts of schemes for extracting oil from coal will be tried, and also for extracting oil from clay. But all that is in the future. What we want now is a proved proposition, a going concern, an immediate supply, and a definite prospect with their potentialities of development over which we can ourselves preside. These we find in Persia, and we find them nowhere else in the world at present. We find them in a region whence we can easily transport our oil to this country in peace or war, and that without the need of adding a single ship for that purpose to our foreign squadron.

The financial negotiations have been conducted by Sir Francis Hopwood, formerly Permanent Secretary to the Board of Trade, and by Sir Francis Black, the head of the Admiralty Contract Department. I am confident that the more the detail of this transaction is examined the more it will be found to stand the test of close scrutiny. The money we pay gives us control, so far as Admiralty interests require, of the Anglo-Persian Company and its concessions. We can appoint *ex-officio* directors with a power of veto, or we can appoint an actual numerical majority of directors on the board. Apart from the £200,000 of debentures which are paid to give us a holding in the debenture stock, the £2,000,000 which we advance will all be used in the actual development of the oil supply by the payment in cash on approved estimates for actual plant and work. Coupled with this agreement is, of course, a supply contract and the supply contract is secret. I think the supply contract has not actually been signed yet, but there is a supply contract as a counterpart of this agreement.

We are not only, of course, proposing to be the largest shareholder and the predominant partner in this concern ; we are also its principal and most regular customer. What we do not gain at one end of the process we recover at the other. The Chancellor of the Exchequer will not allow the Admiralty to reap the profits of this transaction. We have to pay for the oil, but the Treasury will recover the profits. Whatever we lose in price we gain in profits by the advantageous position which we hold. The quantities and prices of the supply contract are, of course, secret, like everything else connected with our oil fuel supply; but I can tell the House that the quantities will embrace less than half of our total requirements of oil, and the prices will be fixed on a sliding scale in relation to profits. How is the money to be found ? It will be issued from the Consolidated Fund. Let me hasten to relieve the natural anxiety of the hon. member (Mr. Joynson-Hicks). No supertax and no supplementary estimate or loan will be required in consequence of this. As the State is acquiring a revenue-producing asset, the ordinary procedure would be to borrow and replace sums issued on terminable annuities. But, in the present instance my right hon. friend has still in his strong box £1,500,000 which was diverted from the old sinking fund by the Finance Act of 1912, which was reserved for belated naval payments, and he has also a further £750,000, making £2,250,000, which representes the old sinking fund for 1913–14. Accordingly it is proposed to meet the expenditure on the acquisition of this new capital asset out of these accumulations without any new borrowing of any kind.

As soon as the House approves this resolution to provide the necessary funds steps will be taken to apply for shares, and the payment of about £100,000 out of the first instalment of £500,000 will be made to the company on account of the first instalment, which becomes payable when the application for shares is made. We shall then secure our voting power and be able to appoint *ex-officio* directors, and the company will proceed at once to order the necessary plant.

We believe that this investment of State funds, although no doubt there is a speculative element in it, is a prudent, thrifty, and profitable measure in itself. As a financial proposition it is a good, sound business enterprise in our opinion. It is an enterprise which, on its own isolated merits, would be well worth going in for, in our view, but we cannot confine our view, and nobody can confine his view, of this subject to the business or financial aspect of it alone, or to the narrow point of whether there will be a financial loss or gain so far as this £2,250,000 is concerned. We must look at the naval interests and at the peculiar conditions of the general oil market. The Navy must have oil for the ships which are already built or building. We must have a steady supply ; we must be able to know beforehand, within certain limits, and with proper elasticity, where we can get it from. We must be able to spread out and vary the sources of our supply, and we must safeguard and regulate some at least of the existing sources.

Further, if in the opinion of naval experts in the future it is still necessary to use oil in fast capital ships and in small ships of great speed and in torpedo craft and submarines of all kinds—if it is found that better war vessels of these types can be built for the Fleet on an oil basis than on any other, if there are high and unequalled military advantages to be derived therefrom, we must not let ourselves be deprived of oil. We must not be forced to content ourselves with less efficient war machines because of the difficulties, perfectly superable difficulties, attendant on obtaining a supply of oil, provided this can be achieved with reasonable economy by the exercise of forethought and care. We must continue to make efforts to give our sailors the finest and most suitable weapons of war which science can devise or money can buy. We cannot allow these great advantages to pass to other nations, to whom naval strength is of so much less consequence than it is to us. We must develop our Fleet along lines which lead to the highest possible efficiency. Therefore I reinforce what we believe to be a good proposition, a good financial operation in itself, by naval necessities of the highest order.

Secondly, quite apart from the intrinsic merits of this proposal and the naval necessities which reinforce it, I ask the Committee to consider our position as a great consumer in the existing conditions of the oil market. The general principle of partial State ownership has not been impugned, and I do not expect that it will be impugned in this discussion. But, after all, it is only what we do in regard to the shipbuilding trade of the country by the competition of the Royal Dockyard and the general manufacture of cordite. I do not think there is any question of principle at stake, and in so far as principle is at stake I suspect that the House of Commons and the Committee will be generally favourable to the principle on which we are now acting. All the criticisms so far have flowed from one fountain. They have all come, so far, from Sir Marcus Samuel, one of the heads of the Shell Company, and his spokesman, Dr. Dvorkovitz, of the Petroleum Review.

These gentlemen urged, if I may judge by the public statements which have been made, that competition by the Government in the oil market will tend to lower prices and is unfair to the oil trusts; and secondly, they urge that it would be more patriotic for us to develop an oilfield within the British Empire, like Trinidad, in which Sir Marcus Samuel is interested, or Egypt, where we encounter him again. It is interesting to notice that the American Admiralty also came under the condemnation of Dr. Dvorkovitz, so that we are both in trouble at the same time, and for the same kind of misconduct. I would venture to read to the house a short quotation from the Petroleum Review on this subject. I will read two paragraphs, one of which is a criticism of the British, and the other of the American Admiralty. They are very instructive:—"The numerous letters which we have received during the present week from oil-men protesting against the action of the British Government in regard to its gigantic subsidy for the Anglo-Persian Oil Company eloquently points to the great interest which those associated with the petroleum industry are taking in the important question. That the matter will not be allowed to remain where it is at present is evident, and already we understand several members of Parliament have expressed their determination to insist upon a close investigation of the circumstances which have led the Government to take such a step. As Sir Marcus Samuel stated at last week's meeting of the "Flower" Motor Ship Company, it is amazing that the Admiralty and their advisers should have selected an enterprise in Persia for their support just at the very moment when supplies in British territory and under British jurisdiction are making rapid and most satisfactory progress. There is no doubt that had Egypt or Trinidad been chosen for Government support by the Government their action would not have aroused the slightest adverse criticism." The second paragraph is as follows:—"The proposal of the United States Government to construct a pipeline and erect a refinery in order to assure itself of a supply of oil fuel for its requirements has called forth considerable indignation from the independent refiners of Kansas and Oklahoma, who not unnaturally strongly object to the Government entering the petroleum industry. As in the case of the British Government, so with the Government of the States—it has suggested a proposal which not only savours of the absurd, but which cannot be productive of the slightest good if carried into effect. With the enormous output of fuel oils in America, the Government can without any difficulty secure at rock-bottom prices all the fuel oils it requires. And yet in the face of this fact—which is quite common knowledge—it proposes to construct a line from the Oklahoma fields so as to be in a position to transport its own fuel. But it proposes to do more, for the Oklahoma oil is of a high grade, and therefore before it can be suitable as fuel, the more volatile contents have to be removed, a necessity which will mean the Government becoming a refiner. The Western Petroleum Refiners Association have made a strong protest, and their letter, which is introduced on other pages in this issue, is well worth perusal. It puts forward the strong case which the refiners undoubtedly have, and should cause the Government to drop the proposition altogether."

I do not wish to make any attack upon the Shell or the Royal Dutch Company. (An hon. member.—"Not the least.") I am stating the case. The hon. gentleman has not had to pay the prices we have had to pay on behalf of the Admiralty. Some of their directors dissociate themselves from the criticism which has been made. These gentlemen are conducting their business with the utmost efficiency, and I do not at all criticise them from their point of view or the course they are adopting. I am only stating the facts as they present themselves to the Admiralty mind. They have combined gigantic oil properties all over the world. Some of their directors are on the boards of as many as 20 oil companies. In the Dutch East Indies, Sarawak, Borneo, Brunei, New Zealand, Russia, Egypt, Mexico, California, Trinidad —in all these quarters they have already established a control or partial control at the oil supply, and it is their policy—what is the good of blinking at it?—to acquire control of the sources and means of supply and then to regulate the production and the market price. They have long looked towards the Persian field, which is the only large uncompromised area of supply we can discover at present outside America, and if this Bill and this policy were to fail, there is no doubt whatever in my mind, or in the minds of those on whose advice I rely, that amalgamation or merger of the Anglo-Persian with the Shell on some terms or other agreeable to both parties under some name very prominently associated with this country would probably take place in a very little while.

We have no quarrel with the Shell. We have always found them courteous, considerate, ready to oblige, anxious to serve the Admiralty, and to promote the interests of the British Navy and the British Empire—at a price. The only difficulty has been price. On that point, of course, we have been treated with the full rigour of the game. But it seems to me that our relations might become, from our point of view, even more pleasant, if, instead of being compelled, as we might easily be, to accept whatever price they might think it right to charge, we had an independent position. I say we do not propose to rely entirely on the Persian field. Something less than half our supply from that quarter will probably suffice. We shall, therefore, let me assure the hon. gentleman, be able to encourage the development of oilfields within the Empire, as Sir Marcus Samuel and Dr. Dvorkovitz desire, and we shall continue to buy from various and widely separated quarters, spreading out our custom as we think will best serve the public interest. But there will be this difference. I cannot conceal it. We shall not run any risk of getting into the hands of these very good people. We shall undoubtedly be able to reduce our demands on their oil resources if at any time we consider the prices ruling in the market are excessive. We shall be able to do this by simply increasing the quantity of naval oil, drawn from the Persian field, and by developing new wells in that field, with—this is a very important point—a consequent increase in the supply of the by-products of fuel oil, among which we derive in the prime place petrol With this leverage at our disposal we do not think we shall be treated with less courtesy, less consideration, or shall find these gentlemen less obliging, less public-spirited, or less patriotic than before. On the contrary, if the slight difference of opinion which has hitherto existed about the vicious and sordid matter of prices were removed, our relations would be better; they would become, to use words that have been used in another connection, the sweeter, because no longer leavened with the sense of injustice. That is what I have to say on the subject which is now before the Committee, and which I must remind the Committee has to go through all the prolonged discussion of a Bill.

But let me say before I sit down that I do not think I ought to be scolded for this piece of work. I think we ought to be praised for it. There is no very great inducement for a Minister or a public department to embark on a project of this kind. It involves a lot of very difficult work, a good deal of anxiety, and the certainty of being reproached and criticised in many quarters. If there is a failure it is the kind of failure which can be glaringly exposed and definitely condemned. If there is success it is a kind of success which only manifests itself gradually,

(*Continued on page* 703.)

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| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386.862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/9-24/9 |
| 5% Debentures ... ... | 600.000 | £100 | 99-104 |
| Assam Oil Co... ... ... | 310,000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/0-4/6 |
| Bibi-Eibat Oil Co. ... ... | 250,000 | 10/- | 4/9-5/9 |
| European Oilfields ... ... | 319.181 | 10/- | 5/3-6/3 |
| Lobitos Oilfields, Ltd. .. | 400,000 | £1 | 28/9-29/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78,000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 40/6-41/6 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{13}{16}$-$\frac{15}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158.840 | £1 | 26/0-27/0 |
| Russian Petroleum Co. ... | 999,373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470,000 | fully pd. | 1-$1\frac{1}{8}$ |
| " " Ord... | 690,000 | fully pd. | 10/9-11/9 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047,610 | £1 | $5\frac{3}{16}$-$5\frac{1}{4}$ |
| Pref. | 2,000,000 | £10 | $10\frac{9}{16}$-$10\frac{13}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 18/0-18/6 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 602 | 605 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2,750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 228 | 230 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,200 | 18,300 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 854 | 858 |
| Russian Naphtha Society ... ... | 100 | $170\frac{1}{2}$ | 172 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 179 | 181 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

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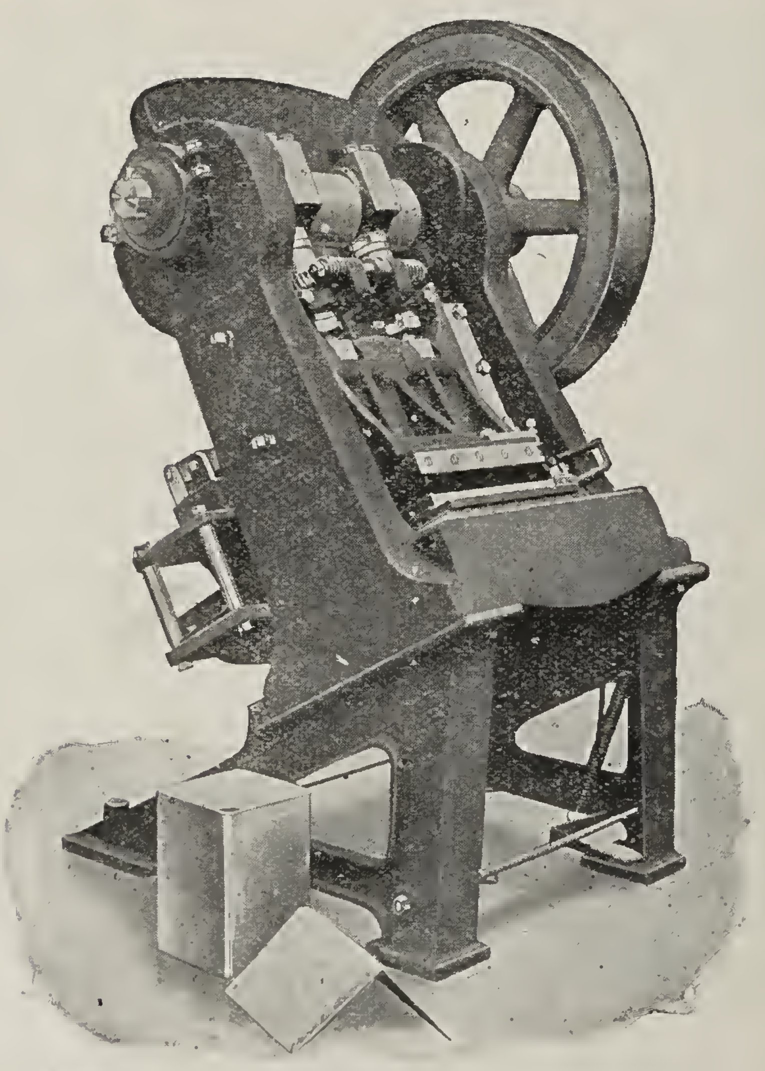
| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 21/6 |
| " 6% Cum. Pref. | 100,000 | £10 | £$11\frac{1}{16}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 83/0 |
| " Pref. ... ... ... | 250,000 | £1 | 27/3 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 70/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 8/0 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | $8,500,000 | $10 | 39/$1\frac{1}{2}$ |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 28/9 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/3 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 71/0 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/9 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 12/6 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 39/0 |
| " "B" Deb. ... | 160,000 | £100 | £140 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | $179\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | $601\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | $36\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | $36\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |



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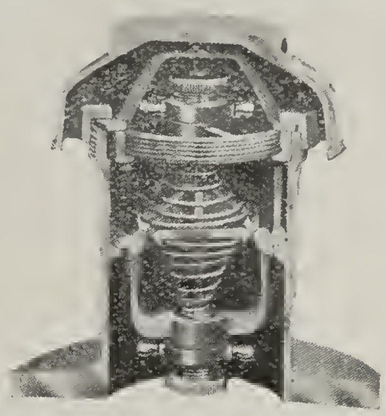

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**PETROLEUM REVIEW,**
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American Office: 111, Broadway, New York.

Saturday, June 20, 1914.

## MR. CHURCHILL AND OURSELVES.

After a long and highly interesting speech, Mr. Winston Churchill on Wednesday succeeded, though not without opposition, in obtaining the necessary Parliamentary authorisation for the issue of a sum of £2,200,000 sterling out of the Consolidated Funds for the acquisition of shares in the Anglo-Persian Oil Company, Ltd. Thus ends, for the time being, an act of folly on the part of the present Government, the tragic sequel to which will become the more palpable as time goes on.

The Review has taken a decidedly firm stand in opposition to the proposals of the First Lord of the Admiralty from the moment they were made public property. We have shown—conclusively shown to any evenly balanced mind—that the principle embodied in the Anglo-Persian oil fuel agreement was fundamentally wrong, and bound not only to do great harm to the petroleum industry at large, but of a certainty bound to react with full force to the disadvantage of the Government itself. We have issued a timely warning based upon the knowledge of experience that the sinking—it cannot be called investment—of substantial sums of public moneys in the oilfields of Persia is a mistake of a most grave character.

That Mr. Churchill has carefully perused our attacks upon his pet scheme is evident, if only by the most liberal extracts of the same which he read to the House on Wednesday evening, and that these criticisms of his ill-chosen policy have fallen in all their seriousness upon him must also be admitted. There can hereafter be no suggestion that those who have laboured for years in the petroleum industry remained silent while he was embarking upon that most dangerous policy of seeking to set up the British Government as a refiner and distributer of petroleum products.

Primarily for Mr. Churchill's own edification, we would emphasise our main contentions that since the Admiralty must of necessity render the supply of some hundreds of thousands of tons of oil fuel tolerably secure for their own Admiralty requirements, little can be said against a well-thought-out policy which shall achieve these ends; nor do we raise any objection against the spending of public moneys for subsidising operating concerns whose serious aim is to obtain commercial supplies of oil fuel in regions which are geographically well situated. The British Admiralty has gone so far in connection with the use of oil fuel—and we say quite rightly so—that a policy destined to assist the production of oil fuel in such circumstances could not meet with the serious objection of any student of the subject.

But this is not, nor has it been, the policy of the British Government. It has, thanks to an undercurrent of influence which has been noticeable in Burma for many years, taken a step which no other Government in the wide world has taken, for it has framed a policy, which now has received the sanction of the Constitution, that it shall become a refiner, transporter, and a marketer of petroleum products, and consequently be in open opposition to private interests in the European and near Eastern markets. This is the main point in our opposition, a point which is none the less important for having been ignored by the First Lord of the Admiralty.

The quotations of Mr. Churchill from the Review to the House of Commons the other evening were absolutely correct, and we would make this point to show that we are ever willing to admit the truth of statements when they are truthful. As for the whole of the other portions of Mr. Churchill's speech, we cannot but think that the First Lord of the Admiralty was insincere throughout. Not only was this insincerity to our mind very marked, but what was much worse was the total disregard for fact and the preference for fiction.

Mr. Churchill's suggestion that Dr. Dvorkovitz is the spokesman for the "Shell" interests is an utterance absolutely untrue in fact, and, being so, must have been made solely for the purpose of hoodwinking the members of the House of Commons. Dr. Dvorkovitz made it quite clear in public meeting last week that the step he has taken in opposition to the Government's proposal was taken with the one desire to protect the interests of the petroleum industry as a whole.

We have no desire to unduly set ourselves against Mr. Churchill, in fact in times past we have had a particular regard for the sound ideas he has advanced. It is a pity, therefore, that on the present occasion he has allowed himself to be the willing spokesman of the Anglo-Persian Company in connection with a policy which cannot but place this country and its oil fuel supply in a most unenviable position. Flights of rhetoric always command the attention of politicians, and it is a pity that this oil fuel agreement has been made a party question. But where money is concerned—and public money too — facts should always be forthcoming and should hold sway. There should be no question as to the secrecy of the price which the Government is to pay for its oil fuel from Persia. That it will be a far less favourable price than that which can be quoted for supplies purchased in the ordinary way of trade is to our mind certain, and this, we fear, is the real reason for secrecy. However to this point we shall shortly return with figures which cannot be ignored by the British Government, for the subject is of too serious moment to be allowed to pass from the public purview.

The American Government quite recently advanced somewhat similar ideas, but happily the weight of public opinion has prevailed, and we learn that the proposition of the United States Government is on the point of being abandoned.

Would that public opinion had weighed in the case of the British Government, for then the Anglo-Persian agreement would have met the fate it deserved and been discreetly dropped.

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JUNE 15th, 1914.

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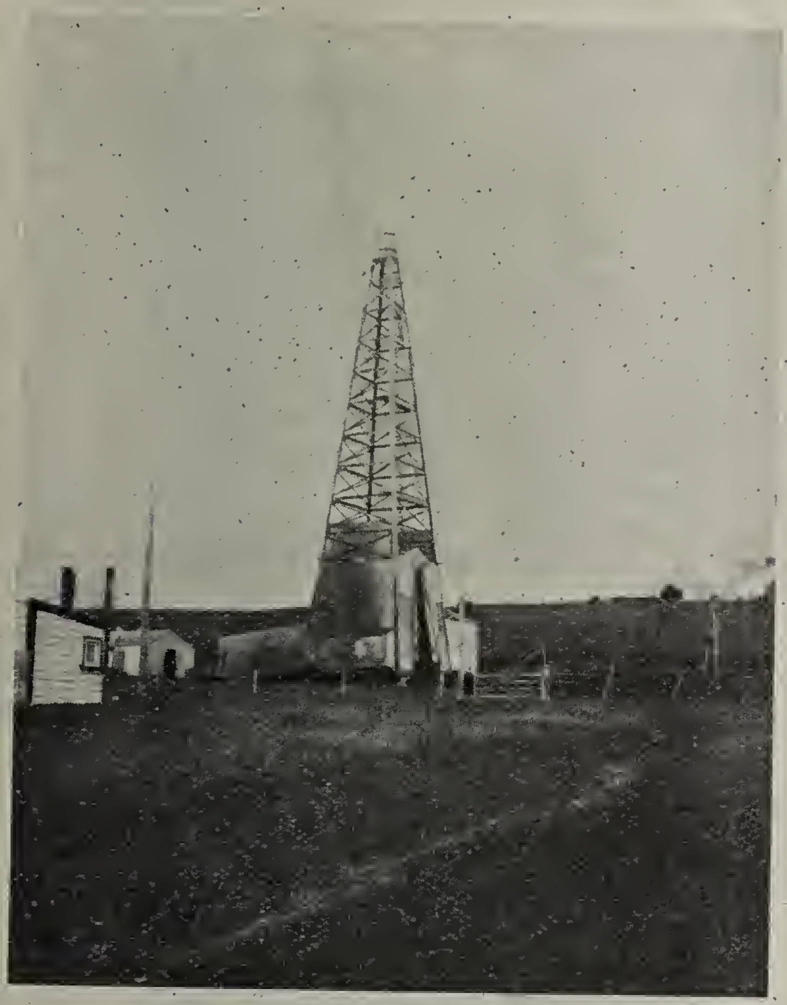
IN GALLONS.

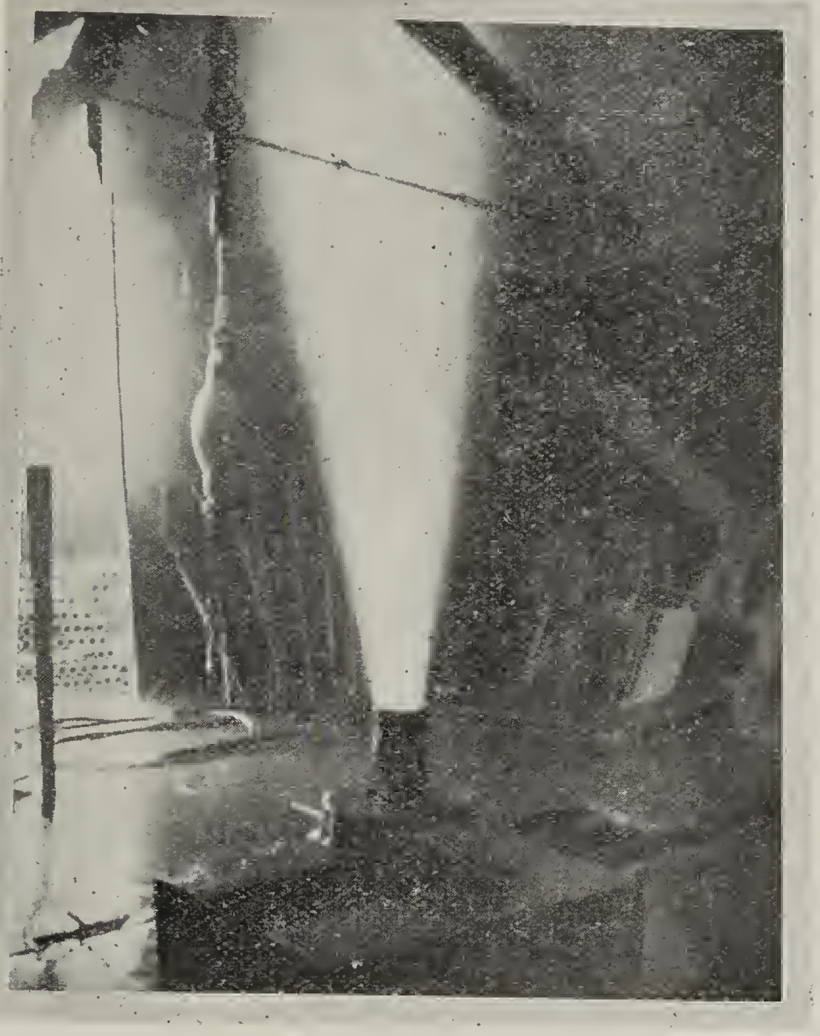
| Country. | Illuminating. | | Lubricating. | | Residuals. | | Gas Oil (Solar). | | Benzine. | | Fuel Oil. | | Other Descriptions. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. | Since June 8. | From Jan. 1. |
| Belgium .. | — | — | 10,790 | 361,400 | — | 2,000 | — | — | — | 32.220 | — | — | — | 1,350 | 10,790 | 396,970 |
| Canada .. | — | — | — | 4,400 | — | 47,300 | — | — | — | — | — | — | — | — | — | 51,700 |
| Dutch Indies | — | — | — | — | — | — | — | — | 716,800 | 24,522,360 | — | 83,400 | — | 1,748,910 | 716,800 | 26,354.670 |
| Germany .. | — | 29,250 | 19.520 | 1,264 640 | — | — | — | — | — | — | — | — | — | 4,300 | 19,520 | 1,298,190 |
| Holland .. | — | — | 360 | 5,410 | — | — | — | 182,000 | — | 3,369,780 | — | — | — | 11,210 | 360 | 3,568,400 |
| Mexico .. | — | 3.872,570 | — | 11,800 | — | — | — | — | — | 1,218,860 | — | 7,037.370 | — | 368.300 | — | 12.508,900 |
| Roumania .. | — | 7,659,900 | — | — | — | 961,440 | — | — | — | 2,655.250 | — | 2,348,570 | — | — | — | 13.625.160 |
| Russia . | — | 2,909,650 | 4.910 | 2.608,460 | — | — | — | — | — | 10,202,600 | — | — | — | 630 | 4,910 | 15.721,340 |
| U.S.A. .. | 865,200 | 47,715,430 | 353,540 | 22,792,570 | 7,260 | 98,530 | 1,543,250 | 34.323,700 | 825,000 | 10,489.680 | 418,180 | 6,053,930 | 31,950 | 288,740 | 4,044,380 | 121,754,170 |
| Other Countries | — | 3,770 | 19,680 | 162,680 | — | — | — | 1,460 | — | 210 | 650 | 4,800 | — | — | 20,330 | 172.920 |
| | 865,200 | 62,190,570 | 408,800 | 27,211,360 | 7,260 | 1,109,270 | 1,543,250 | 34,507,160 | 1,541,800 | 52,490.960 | 418,830 | 15,528,070 | 31,950 | 2,423,440 | 4,817.090 | 195,452,420 |

# DEVELOPMENTS IN THE NEW ZEALAND FIELDS.



THESE photographs show the Parker rotary-drilled well of the Taranaki (N.Z.) Oil Wells, Ltd., in the New Plymouth field. The blow out shown in the second photograph was the most powerful experienced in the history of the field. Reports to hand state that the tools had just passed through a sandstone formation, when, without warning and before the tools could be removed, there was a terrific outburst of gas and oil. Before the well was under control the surrounding land was thickly overlaid with mud and oil thrown out of the hole.

Other reports state that test drilling has been started in the Inglewood district, near New Plymouth. Drilling has also been started by a Christchurch company at Chertsey, on the Canterbury Plain, in the South Island. The plant is a combination of Canadian and Californian types.



**Congress of Engineers in Roumania.**—In October next a congress of the Roumanian engineers will take place at Bucarest, at which will be discussed, among other questions, several of great interest in the petroleum industry.

**New Steamship Company on the Danube.**—The Astra-Romana has now created at Oltenitza a loading station for petroleum, and is forming a navigation company on the Danube. The new company is formed under the name of Danubiul, with a capital of 1,000,000 francs.

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(*Concluded from page 690.*)

storage, all of which were on an extensive scale corresponding to the figures he had just quoted.

The kerosene and motor spirit tanks were surrounded by a wall consisting of clay and earth, which was sufficiently high to protect the contents of the tanks, thus in the case of fire entirely safeguarding the surrounding property.

There were some 2,000 yards of 6-in. and 8-in. diameter pipeline with various valves and fittings connecting the tanks with the discharge berth, pump-house, barrelling building, and car-filling standards. Those pipes were heated by means of steam pipes laid under the same, for which purpose some 5,000 yards of steam piping had been installed. The boiler house was equipped with an oil-fired Babcock & Wilcox water-tube boiler capable of supplying steam at a pressure of 160 lbs. In the pump house were installed two steam-driven pumps for handling the heavy products, each capable of dealing with 50 tons of oil per hour, and in a separate building steam-driven pumps of the same capacity for kerosene and motor spirit were being installed. A barrel and cooperage building of corrugated iron, 95 ft. long by 45 ft. wide, were being provided for cooperage and the filling of barrels, together with storage of same. The building had platforms on either side from which loading into rail or road cars could be conveniently carried out. A number of filling standards or loading lines were being provided for loading both rail and road tank wagons, the total capacity of loading being up to 150 tons per hour.

About 700 yards of railway sidings were being installed at the installation.

Proceeding, Mr. Brousson said the chief significance of the installation lay in the ample provision made for the storage of Mexican fuel oil. The immense petroleum resources of Mexico were being rapidly developed by the parent concern—the Mexican Eagle Oil Company, Ltd., with which Lord Cowdray was closely associated—and he was glad to say that the demand for fuel oil for industrial furnaces and metallurgical processes was rapidly growing in the country, and especially in the North of England, as the enormous advantages it presented were realised. The equipment of such a large storage installation for fuel oil would further serve to give steamship owners confidence in equipping their vessels for burning fuel oil, which was now being done in view of the superior efficiency and remarkable savings effected by the use of fuel oil in the place of coal in the mercantile marine. They naturally hoped the installation would be a source of profit to their company, and he trusted also that it would contribute in no small degree to the prosperity of the trade of the port of Bristol. They were greatly indebted to Mr. Ross Johnson, the general traffic manager of the port, for his courtesy and assistance during the construction of that installation.

Mr. Brousson then asked the company to drink "Success to the Port of Bristol," and with the toast he coupled the name of Alderman Twiggs.

In responding to the toast, Alderman Twiggs paid a compliment to the board and officers of the Anglo-Mexican Petroleum Products Company upon the very businesslike way in which they had conducted all their negotiations with the Docks Committee. They could not desire any greater courtesy than that shown to them, and he hoped that the Anglo-Mexican Company on its part would have nothing to complain of. The vessel which they had seen discharging her liquid cargo that day seemed to point to a great future for oil. They knew that the designers of ships were considering the best means for providing motive power, and he believed that in the near future a very large number of vessels as well as industries would rely upon oil for power purposes. Therefore, he thought they might look with confidence to a great expansion in the trade in which the Anglo-Mexican Company was interested, in an expansion in which he trusted the port of Bristol would participate.

There was no doubt that Avonmouth possessed great advantages as a distributing centre, for its facilities were such that petroleum products could be sent by rail or coastwise to other parts of the country or through the canals to the Midlands. Therefore the Anglo-Mexican Company had selected a spot which augured well for their future prosperity. The oil trade of the port of Bristol had been rapidly growing during recent years. During the past seven years the oil trade of the port had trebled, and they anticipated that by the efforts of their new friends, the Anglo-Mexican Company, those imports would more than double in a few years to come.

Sir William Howell Davies then asked the company to drink to the good fortune and continued success of the Anglo-Mexican Petroleum Products Company. There was no doubt that oil was to play a very important part in the future of steam raising, and though the previous day the House of Commons agreed to an arrangement whereby the Admiralty would receive a large portion of its supply of oil fuel from one source, that amount would be barely 50 per cent. of its requirements, so there was plenty of room for supplies of oil fuel from other sources for Admiralty needs. It did seem to him that future requirements of oil fuel would be very much greater than were at present anticipated, both on sea and land. He therefore wished all possible success to the Anglo-Mexican Company, with which toast he would couple the names of Mr. Purdy and Mr. Brousson.

The company rose and heartily received the toast, Mr. Purdy replying in a few well-chosen words. He said his company felt that in coming to Avonmouth they were doing the right thing. They had so far received nothing but kindly consideration from the Docks Committee, and he hoped that all future negotiations would be as amicably carried out as had been those of the past. Oil fuel, as they knew, had so far not made great headway in the West of England, because the imports had not been kept up regularly. Some years ago oil fuel came into the country at a very low price—in fact it was practically given away—and then it quickly went up to something like £4 per ton, which of course nearly killed the trade. His company, however—and he looked upon them as pioneers in that respect—did not intend to build up a trade at artificially low prices, and then raise them to any unreasonable level. They wanted to give satisfaction to the people they dealt with, and in an attempt to do that they would guarantee continuous supplies at reasonable prices; and he believed it was upon those lines that the oil fuel business in this country would grow and assume immense proportions.

The party—about seventy in number—then left the installation, several members, however, again paying a visit to the "San Melito."

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(*Continued from page* 694.)

long after everybody has ceased to care about the original controversy. From my point of view and from the point of view of the Board of Admiralty, if we took a narrow view of the subject it would be much easier and pleasanter for us simply to sit still and loll with supine ease while we watched the absorption of every independent oilfield—to sit still and observe the whole world being woven into one or two great combinations—to treat those combinations with the utmost consideration, to buy from hand to mouth in the so-called open market what we wanted from time to time, to pay the great oil trusts what they would consider an encouraging price, and to present the bill to the Treasury and the House of Commons year by year. It is for Parliament to decide. It is for Parliament to balance the moderate element of fair commercial risk which is inseparable from business enterprise of all kinds against the certainty of over-charge which follows on monopoly. It is for Parliament to balance the trouble and mental exertion unquestionably required from its members in the process of securing an independent oil supply against the exploitation of which the taxpayer would otherwise be the victim. We are confident that Parliament in facing the difficulty and making the exertion will only be doing its duty to the State, and we are confident that we have only done our duty in placing these carefully considered proposals before them at the earliest possible date.

Mr. G. LLOYD.—Many of us regret that in the latter part of his speech the right hon. gentleman should have brought forward personal imputations against hon. members who are interested in this question. Such imputations come very badly indeed from the other side. Everybody will agree with the right hon. gentleman as to the vital importance of the Admiralty and this country getting independent reserves, free from all interests, combines, or trusts, in any part of the world. I make no criticism of the Government for desiring to enter into a contract for seeking out in any part of the world for their sources of oil supply, but I wish to test the present proposition by the governing principles which were laid down by the First Lord of the Admiralty himself on July 17th and which are quoted in the Blue-book. These principles were a wide geographical distribution of supply, and the sources should, so far as possible, be under British control or interests and along those ocean routes which the Navy could most easily and most surely protect. Personally I do not believe that the proposal of the right hon. gentleman harmonises with any one of these principles. It is quite obvious from the speech of the right hon. gentleman that he absolutely failed to appreciate the position in Persia, where he is going to sink £2,000,000 of the taxpayers' money. He swept aside the whole of the military question and the whole of the Central Persian difficulty by reference to the old dictum that so long as we have command of the sea nothing else matters. That is absolutely untrue as regards the present proposal.

How are these properties to be defended? If we are not able to defend them by the Navy, how is it proposed to defend them? I happen to know these districts very well, and the only actual oil-bearing wells which the Government are going to acquire to-day are at Kasr-i-Shirin and Shustar. All the other marks on the map in the Blue-book indicate unproved areas, and therefore must be taken as purely hypothetical. I have every reason to believe that the oil is there, but at present the areas are unproved. These places are situated in a country which has no central control whatever and are surrounded by warlike tribes whom we have never been able properly to control. Even Admiral Slade in his report, of which the right hon. gentleman made no mention——

Mr. CHURCHILL.—It is published in the Blue-book.

Mr. G. LLOYD.—Even Admiral Slade by no means agrees with the rosy view which the right hon. gentleman takes, for he expressed the view that the difficulties and dangers might be serious. On the west of these wells a Turkish Army Corps is regularly resident at Baghdad and in the neighbouring district and province. On the east, and quite close to them, there are the large, powerful, and turbulent Bakhtiari tribes, on the north there are the Russian Cossacks; while within range of the wells are the most turbulent of the Muntefik Arab tribes, who do not regularly cross into Persia, but when they do everybody knows about it.

The right hon. gentleman, who obviously knows nothing whatever about it, made no mention of the great danger to which these properties are exposed. They are surrounded by material far more inflammable than the oil which they sought, and the Committee are entitled to know how it is proposed to defend them in case they are attacked. Did the Foreign Office consider what they meant to do when they acquiesced in the purchase of these properties? They could not appeal to Persia for help in case of attack. They would not, and could not, appeal to Russia to send down their Cossacks to look after our interests; and they could not ask Turkey to send their Army Corps from Baghdad. We are offering a big lever point to foreign interests to harry and worry an industry which we should be bound to protect if we possibly could. We are giving hostages to Turkey, we might be giving them to Russia and Persia, which we may find it very hard to recover unless the Government have a scheme in their mind for the defence of the property. Is it to be defended by the Navy, to be sent through the Mediterranean, which the Government have so largely abandoned to France? If so, are we to embark large landing parties at the mouth of the river Shatt-el-Arab.

In a word, who is going to protect these wells? It must be the duty of the Indian Government to defend them. If so, have they been consulted? I fail to see any report in the Blue-book as to their views, and I think we have a right to know what the views of the Viceroy and the Government of India are with regard to this matter. Are the Government of India in a position to undertake new and immense responsibilities which would entirely alter the whole of their strategic schemes in the Middle East? Are the Government of India really prepared to undertake defensive operations in an area which is far north of the area to which they sent troops in 1856, and which is still further north of the territory which, only five years ago, Lord Kitchener said he could not possibly hold and defend with the force at his disposal? Is India in a better position than at the time of the Anglo-Russian Convention to defend these areas? Here let me point out that the oil-proved areas lie far outside the British zone as laid down in the Anglo-Russian Convention, and that scarcely a single one of the unproved ones lies within the British zone at all. It has been over and over again stated that Lord Kitchener, when consulted over the areas for the Anglo-Russian Convention, said that under no circumstances could he possibly hope to defend with the forces at his disposal a greater area than that incorporated in the agreement as the British zone in the Anglo-Russian Convention. If he could not do it then, can India do it now with the ever-increasing difficulties of the purely Indian position? Surely those of us who criticised the terms of the Anglo-Russian Treaty six years ago are shown doubly justified to-day by the terms of the contract the Government now presents to us. The Admiralty, for the vital needs of the Navy, are having recourse to the investment of very large sums of money—which no doubt will be followed by still larger sums—in an area the virtual control of which we held for 150 years before this Government came into office, and which we abandoned soon after they came into office. I am absolutely in favour of seeking oil supplies independently of the trusts in places where they can be properly controlled. You are hoping to find large supplies nearer India than Shustar or Kasr-i-Shirin. Show us the oil spring which you can control by the Navy from the Persian Gulf, and you will have my support in the lobby. Would not it have been more businesslike to have proved those properties which are capable of defence first before coming to the House? When you had proved them and found sources of supply which you can properly control with the means at your disposal, you could have asked for 50 millions or more if you had wanted it. I think we ought to ask for a great deal more information from the First Lord of the Admiralty and the Foreign Secretary with regard to the means and measures which they contemplate taking to govern the Central Persian situation. If they can give us no assurance that they are not embarking lightly on a new and dangerous precedent in a turbulent area; if they cannot give chapter and verse and a more adequate defence for the two millions they are going to spend, I think the matter ought to be delayed until they can give us more information.

Mr. RAMSAY MACDONALD thought the whole Committee would support the hon. member in his demand for further information. They would be willing to take a good deal of risk and supply the money required provided it would free the Admiralty from the squeezing of the oil trust. He agreed that it was the duty of the Government to do everything it could to break monopolies, and he hoped they would not hamper the Anglo-Persian Company in putting upon the market as liberally as it possibly could every species of by-product. He had come to the conclusion that Sir Marcus Samuel and his friends were not so much opposed to the Government going in for the production of fuel oil as they were concerned for the marketable by-products.

Mr. Gretton said the Government had dealt with this matter in a very unbusinesslike manner. There had been and still was far too much secrecy, and information which they should have was concealed from the House. The First Lord of the Admiralty told the House he had been squeezed by monopolists, but gave no facts to support his statement. Any director who tried to treat his shareholders as the First Lord treated the House would find himself in great trouble. The control of the Government over the company would be political, not commercial, control, for as long as the company's finances were adequately managed and no attempt was made to part with the concern there would be no power of veto. The company would not act from philanthropic motives, and the Government would have to pay the full market price for their oil in order that the shareholders might get their dividends. They were therefore being asked to invest an enormous sum of public money in a commercial speculation in a remote region. The right course to take would be to make contracts far ahead so that the contractors might lay down plant and machinery for the development of their resources. The proposal that had been made was one of the most unbusinesslike, unsound, and unthrifty proposals ever submitted to the House.

Mr. Ponsonby dealt with the subject from the point of view of foreign policy. He regarded it as most unfortunate that of all regions in the world the Admiralty should have gone to Persia, where this additional complication might produce a grave situation for this country at any moment.

Sir E. Grey.—The hon. member for Leicester asked whether this contract increases our obligations in Persia and makes it more probable that we should have to take some action by British troops. Of course, every strengthening of our interests in the south of Persia does increase, I will not say the obligation, but the interest we have in protecting the trade routes. Every increase of British trade does that naturally. It is the case that the position in Persia has not been satisfactory. Russia has protected her trade routes in the north and Russian trade has gone on uninterruptedly. In the south British trade has suffered by the interruption on the trade route, and in view of the general interest we have in seeing that affairs do not get so bad that British trade is entirely excluded from the south of Persia, it cannot be said that the acquisition of this particular interest is a serious addition to our obligations. We should still have some obligations towards this company even if we had not invested a cent in it. Though the British Government has no direct obligation to it, this company is one which has been encouraged in previous years by the British Government, and has at least as strong a claim as any purely British traders have to ask for protection if its property is in danger of being destroyed. The additional obligation we are incurring, if any, is an obligation to ourselves, but I do not think that that is very much stronger than the moral obligations we were under to British traders generally, and this oil company in particular, even if we had no interest of our own in it. Admitting that in what we do now we give certain hostages in a disturbed district by acquiring interests, however remote or slight they may be, I would ask what part of the world is there outside the British Empire where we could have acquired an interest of this kind in oil without giving these hostages and where we could become less interested in giving protection than we are in this particular case. The hon. member said that there were other places not yet proved, but where he thought the chance was good of acquiring oil, such as Kishm, for instance, or places near to the coast in the British sphere in Persia. Kishm is an island. I am told that the prospects of oil occurring on Kishm are as good as they are in regard to many places on the mainland. If we had delayed a year even, and within that year the very best hopes with regard to the island of Kishm and the other places near the coast had been realised, he would never have had the chance of giving his vote for this proposal because it could never have come forward. All these places near the coast and the island of Kishm are within the Anglo-Persian Oil Company's concession. The hon. member for Stirling Burghs seemed to be under the impression that this was a new concession. There is nothing new in this concession at all. The only thing new is the arrangement between the British Government and the company. The concession is thirteen or fourteen years old. It is not altered in any way.

Can anybody point to any other part where we might get oil concessions outside the British Empire where those risks would be less? Take the difficulty of protecting these oil wells, and, even at the worst, 150 miles of pipeline from the coast of Persia. Would you rather have oil wells in Mexico? Would it be easier to send a British force there to protect them? People talk of the danger of the concession being threatened by Russia or by Turkey. Would you rather have the oil wells actually in Russian or Turkish territory? Of course the objection would apply with still more force. Would you rather have the oil wells in a country with whom we are on the best of relations and with whom we have. I would say, almost no possible cause of friction such as the United States? We hold, and it is a sound international doctrine, that though oil is contraband of war if intended for oil ships, there is no obligation on a neutral, and indeed it is contrary to the proper application of international law for a neutral, to interfere with the export of contraband providing of course it is not on a scale which makes the port a military or naval base. Can you be quite sure that a Government such as that of the United States would take that view? International law is something with no sanction behind it, but in this particular case it is not the least likely that the Persian Government, either now or in future years, will raise intricate points of international law of that kind. I suppose it is not impossible, but it is not very likely.

You cannot remain entirely passive to the disappearance of British trade in the south of Persia, and I am quite sure that if we were to state definitely that as far as British commercial aims—for we have no political aims—in the south of Persia were concerned, we were ready to abdicate and see them disappear, the result would not be in any way to discourage the interest or the steps which Russia or other Powers than Russia would be likely to take in Persia.

I should like, when we have the Foreign Office Vote, the hon. member to develop his point as to what he means by saying we ought to have shown more determination in our policy. I think he used that with regard to our support of the Swedish gendarmerie. I can tell him what more determination would mean. It would mean asking the House to vote more money for the Swedish gendarmerie. I cannot believe for a moment that this would create any difficulty between us and the Russian Government. Part of the concession is actually in the British sphere of Persia, and even if the new concession were in the neutral zone, that neutral zone is open to concessions to either country. We are not excluded from acquiring new concessions, but it is not a new concession. It is an old concession, acquired thirteen or fourteen years ago, and well known to the Russian Government for a long time, and I cannot suppose that our dealings with the Anglo-Persian Company will be regarded as anything more than a matter which concerns ourselves.

Mr. Ramsay Macdonald.—May I ask the right hon. gentleman whether he sees no difference between a huge company, which is practically a Government company now, and the ordinary operations of private British traders?

Sir E. Grey.—I think there is a difference really in this case which concerns the House and the British Government. So long as the concession remains as it was, being a concession, amongst other things, which it is perfectly well known the British Government have encouraged and supported previously, I really think it is a concession which we have a perfect right to deal with in the particular manner which is now proposed, more so as part of the concession relates to islands in the Persian Gulf and part of it relates to the British sphere itself.

I would only answer one more point. The hon. member for Leicester asked for a pledge that the Admiralty would not draw all its supplies from this source. I think my right hon. friend gave such a pledge in his speech, and with regard to the intention as to getting oil from the home fields, I believe I am correct in saying that the Admiralty are prepared not only to take the fullest possible advantage of any discoveries that are made which will ensure a supply of oil from the home fields, but to do everything in their power to encourage research to make those supplies available.

Mr. Falle.—Will the right hon. gentleman say what is the exact political position at the present moment on the island of Kishm? It is not so long ago that our flag flew on that island. Have we abandoned all our rights there?

Sir E. Grey.—No, Sir. The rights remain as they are. There is a British coaling station on the island of Kishm; that remains just as it was. It did not cover the whole of the island by any means.

Mr. Pretyman recalled that this transaction was originated in its very early stage by the late Board of Admiralty and that it was at their request that Mr. D'Arcy refrained from continuing the negotiations for the sale of this concession to a foreign syndicate and that, later, the Burmah Oil Company and Lord Strathcona came forward and undertook the formation of an exploration company. It was characteristic of Lord Strathcona that when he, on behalf of the late Board of Admiralty, saw him on the subject, Lord Strathcona only asked one question. "Is it in the interests of the British Navy," he inquired, "that this enterprise should go forward and that I should take part in it?" and, on being assured that it was, he agreed to do what he had been asked. Had it not been for their action the concession would have fallen to a larger interest long ago, and they would then have derived a much larger pecuniary benefit than they would from the arrangement with the Government. The Government were open to serious criticism for having done nothing for eleven years. While it was not desirable that a Government Department should be in partnership with a private company, he did not think any better arrangement could have been made. Having some knowledge of the question he thought that from the business standpoint and from the standpoint of the fuel supply of the Navy the arrangement was worth making. He did not know where any supply of equal magnitude could be obtained or where else an arrangement could have been made so likely to keep the price within reasonable bounds. He did not like the way in which the money was being found and more would be heard of that next week. In view of the fact that he was the largest consumer of oil in the world he did not think the First Lord of the Admiralty should have attacked those interested in the oil industry as he had done.

Mr. Dillon thought it was hardly dealing fairly with the House for the Foreign Secretary to lead them into this enterprise under the delusion that if the oilfields were attacked the British Government would not be called upon to protect them. It was a rather sinister fact that among the various schemes for protecting the oilfields the Foreign Secretary appeared to give the go-by to the Swedish gendarmerie. It was all the more sinister in view of the extraordinary article in *The Times* of Friday last. He had long studied *The Times* on these questions, and he had not the slightest doubt that these leaders were inspired by the Foreign Office. One could always know what the policy of the Foreign Office was going to be a long way ahead by reading the articles in *The Times*. *The Times* said they believed the Swedish officers had worked arduously and gallantly, but on the whole had not succeeded and were not likely to succeed. That was a most sinister statement, inspired, he believed, by the Foreign Office. The subsidising of the Bakhtiari at this crisis was a practical endorsement of the contention that the Swedish gendarmerie had failed. He was not enamoured of the Swedish gendarmerie, but they had been practically forced on the Persian Government by the British Government, which under the dictation of Russia denied them the services of Captain Stokes. Now it was their apparent intention, following the lead of *The Times*, to substitute for the Swedish gendarmerie some wholly new system of maintaining order. After further quotations from *The Times* article, he said that the conclusions he drew from it and the speech which had just been delivered was that the proposal to acquire a controlling interest in this great oilfield was part of a scheme which had been developing for several years, and that was the partition of Persia. His objection to the scheme for acquiring a controlling interest in the oilfield was that its value might be outweighed by the risks involved. He was convinced that the British flag would follow this enterprise.

In the debate which followed, Sir A. Spicer expressed the belief that this enterprise would result in a gradual diminution of the existing disturbances in Persia; Sir Fortescue Flannery argued that the scheme was wrong in principle and dangerous, and would not ensure that continuity of oil supply which was the Admiralty's object; Mr. T. E. Harvey said that the First Lord's venture caused many members on the Ministerial side of the House great anxiety.

Lord C. Beresford said the Admiralty were at their wit's end because they had built ships before they had got the oil in store, and that was the real explanation of the present unbusiness-like proceeding. It was the criminal neglect on the part of the Admiralty. He was not going to believe the explanations of the First Lord. Why should he believe the statements of a man like that? They had been so contradictory during the whole of his public life. There ought to be 2,000,000 tons of storage of oil before the ships were laid down at all. At any moment the trade artery for oil might be cut and that would affect the campaign enormously. In Roumania the supplies were cut off at once during the Balkan war, the Mexican supplies were cut off, and now the Admiralty were going into a country which was the focus of disturbance of the whole East. This was a purely speculative gamble, and, though he did not wish to hamper the First Lord—if he wanted the oil he must have it from somewhere—he urged that Parliament ought not to vote this money until they had been furnished with more details of how and on what it was to be spent.

Mr. Morrell insisted that the only condition on which this contract was desirable and advisable was that we were sure that the integrity of Persia could and would be maintained as an independent country.

Mr. S. Samuel protested most strongly against the attack which the First Lord of the Admiralty had made upon his brother, upon the Shell Oil Company, and upon the 12,000 British shareholders. The Company had done all that it possibly could to help the Admiralty for very many years, but they had always been treated with the greatest hostility by the British Government. The remarks of the First Lord had been absolutely unjustified. He denied absolutely that they had done anything to exploit the Admiralty, and through them the nation. He was not at liberty to mention anything about the price—the Admiralty had chosen to call that a secret—but he had no hesitation in saying that the directors of his company would not object to the publication of the prices which had been charged to the Admiralty. The prices the Government had paid were no dearer, and in many cases were cheaper than those for which they had been able to secure supplies from other countries. He believed that both past and present Governments had been deceived. There had been no monopoly in 1903, and there was no monopoly now. If the prices charged by his company could be published they would prove that the Admiralty could have obtained supplies from them at prices equal to those they were obtaining in Persia. He believed the Persian oilfields were good, but the Admiralty were evidently unaware of the developments in Egypt, and that the Anglo-Egyptian Oil Company, in which the Egyptian Government were shareholders, a thoroughly British company, was in a position, had it been approached by the Admiralty, to have given them much larger supplies than they had got by their contract with the Anglo-Persian Company.

Mr. Watson Rutherford deprecated the fact that the First Lord of the Admiralty, in order to justify this proposal to his supporters, had raised the bogey of monopoly and indulged in a little bit of Jew-baiting. He suggested, among other things, that the Admiralty should foster the production of liquid fuel in Great Britain; then that there ought to be storage in suitable ports of sufficient capacity to last the fleet during the probable continuance of war; and thirdly, that the oil resources within the Empire should be explored and developed, and he instanced Canada, Newfoundland, Trinidad, and Barbados.

The House divided and the motion was carried.

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## JAPAN'S OIL PRODUCTION DURING 1913.

H.M. Commercial Attache at Yokohama reports, says the *Board of Trade Journal*, that the output of crude petroleum in Japan in 1913 amounted to 8,752,500 cases (of 8 imperial gallons), as compared 7,336,900 cases in 1912, an increase of 19 per cent. The chief contributor to the 1913 output was the district of Niigata-ken with 8,260,145 cases, as compared with 7,129,600 cases in 1912.

The following table shows the output of the various kinds of refined oil in Japan in 1913, as compared with the previous year:—

| | 1912.<br>Cases. | 1913.<br>Cases. |
|---|---|---|
| Benzine ... ... | 45,565 | 88,450 |
| Kerosene ... ... | 2,255,740 | 2,974,360 |
| Light oil ... ... | 841,580 | 730,330 |
| Heavy oil ... ... | 1,285,350 | 1,165,065 |
| Machine oil ... | 749,300 | 863,935 |
| Total ... ... | 5,177,535 | 5,822,140 |

## AMERICAN NOTES.

**Californian Stocks.** The total stocks of crude oil in the Californian fields at the end of May was almost 50,000,000 barrels.

**Activity in the Texas Fields.**—The present summer will witness great activity in the Texas fields, much of the development operations being of the wild-cat order in districts which promise to give oil in commercial quantities.

**The Calgary Oil Boom.**—The boom in oil lands in Calgary still continues, and during the past three weeks no less than fifty new oil companies have been incorporated at Edmonton. There is now a revival of development in the tar sands north of Edmonton.

**The Cushing Field.**—The daily output of oil from the Cushing field is steadily decreasing, and many hold to the opinion that the field has seen its best producing period. The pressure in the most important producing wells has declined to less than one-half what it originally was.

**Late Pennsylvanian News.**—There has recently been a decline in the activity in the Pennsylvanian fields, due primarily to the reduction in crude oil prices. Many operators who were on the point of carrying out considerable new developments, have abandoned their plans.

**Thirty-eight Cents per Barrel.**—The net price which members of the Californian Independent Oil Producers' Agency received for their deliveries of crude oil during April was 38 cents per barrel, an increase of 1 cent per barrel over the prices ruling for the past several months.

**New York's Fuel Oil Exports.** During the five months of the present year, New York has exported 15,000,000 gallons of oil fuel, and of this quantity 10,500,000 gallons have been sent to England, 6,000,000 gallons to Thames Haven, and the remainder to Sheerness for Admiralty requirements.

**The Lake View No. 2 Gusher.**—This now famous well in the Maricopa field of California continues to produce at the rate of 40,000 barrels daily, the crude oil varying between 21° and 25° Beaume, ·909 and ·905 specific gravity. All hope of being able to cap the well and bring it under control has now been abandoned.

## DEVELOPMENTS IN THE OILFIELDS.

### LATEST PROGRESS REPORTS.

**Anglo-Egyptian Oilfields, Ltd.**—Production at Gemsah (week) 2,755 tons, at Hurgada 134 tons.

**Traian Roumanian.**—Week ended 13th instant, 417 tons.

**Maikop Pipeline and Transport Company, Ltd.**—Received for pumping, week ended 13th instant, 63,190 poods (1,019 tons).

**United British of Trinidad.**—Week ended June 12th, 760 tons. Well No. 25 produced for seven days 180 tons. Well No. 42 produced for seven days 210 tons. Well No. 44 produced for two days 30 tons.

**Anglo-Roumanian Petroleum Company, Ltd.**—Week ended 13th instant, 318 tons. Well No. 24, Bordeni, all week cleaning cork and fishing for instrument, which, after being thrown up by fountain, fell back into well.

**Trinidad Leaseholds, Ltd.**—Cable : "Forest reserve—Well No. 1 : Sand A continues producing about 70 barrels per day. Sand B sealed off. Sand C encountered at depth 500 ft. strong oil flow. Produced 3,500 barrels in 4½ hours, then stopped ; presumably sanded up. Well No. 2 : Sand A average daily production about 60 barrels ; flow increasing."

**Maikop Premier.**—New wells Nos. 3 and 4, several stoppages during the week cleaning. Heavy storms and continuous heavy rain during the week, one man killed by lightning. New well No. 1a, 393 ft. ; cannot free 14-in. casing, now lowering 12-in. casing. New well No. 2a, 45 ft. (increase 45 ft.). New well No. 6, 1,086 ft. (increase 94 ft.) ; second source not met with ; now pulling back 7-in. casing to exploit first source again. New well No. 4, preparing to deepen.

## PETROLEUM IMPORTS INTO THE UNITED KINGDOM DURING MAY.

### THE SHIPMENTS INTO VARIOUS PORTS.

The various shipments of petroleum products into the U.K. ports during May are given in the following table. The total imports for the month were 41,559,550 gallons, or 14,927,790 gallons more than in April.

| Port. | Illuminating. | Lubricating. | Residuals. | Gas Oil (Solar). | Benzine. | Fuel Oil. | Other Descriptions. |
|---|---|---|---|---|---|---|---|
| Aberdeen ... ... ... | — | 2,200 | — | — | — | — | — |
| Barrow ... ... ... | — | — | — | — | 1,034,300 | — | — |
| Belfast ... ... ... | 888,730 | 400 | — | — | — | 497,800 | — |
| Boston ... ... ... | — | 1,440 | — | — | — | — | — |
| Bristol ... ... ... | 2,227,250 | 244,240 | — | — | 2,040,400 | 576,680 | — |
| Cardiff ... ... ... | — | 3,860 | — | — | — | — | — |
| Cork ... ... ... | — | 320 | — | — | — | — | — |
| Dublin .. ... ... | 904,210 | 360 | — | — | — | — | — |
| Dundee ... ... ... | — | 2,160 | — | — | — | — | — |
| Glasgow ... ... ... | — | 293,550 | — | — | — | — | 1,200 |
| Gloucester ... ... ... | — | 1,200 | — | — | — | — | — |
| Goole ... ... ... | — | 15,060 | — | — | — | — | — |
| Grangemouth .. .. | — | 8,940 | — | — | — | — | — |
| Granton ... ... ... | — | — | — | — | 434,000 | — | — |
| Grimsby ... ... ... | 129,600 | 1,650 | — | — | — | — | — |
| Harwich ... ... ... | — | 4,260 | — | — | — | — | — |
| Hull ... .. ... | 1,141,480 | 180,000 | — | — | 829,400 | — | 4,540 |
| Leith ... ... ... | — | 63,450 | — | — | — | — | — |
| Limerick ... ... ... | 681,000 | — | — | — | — | — | — |
| Liverpool ... ... | 1,186,960 | 1,362,920 | 89,040 | 1,123,640 | 50,000 | — | 27,590 |
| London ... ... ... | 4,243,770 | 2,701,360 | — | 5,643,890 | 5,930,970 | 1,472,850 | 363,110 |
| Manchester ... ... | 2,772 450 | 1,894,050 | — | 3,470 | — | 2,130 | 1,650 |
| Middlesbrough ... ... | — | 200 | — | — | — | — | — |
| Newcastle ... ... ... | — | 22,010 | — | — | — | — | — |
| Newport ... ... ... | — | 80 | — | — | — | — | — |
| Plymouth ... ... ... | — | 90 | — | — | — | — | — |
| Portsmouth ... ... | — | 400 | — | — | — | — | — |
| Southampton ... ... | 448,000 | 1,160 | — | — | — | — | — |
| Swansea ... ... ... | — | 4,180 | — | — | — | — | — |
| Totals ... ... | 14,623,450 | 6,809,540 | 89,040 | 6,771,000 | 10,319,070 | 2,549,460 | 398,090 |

# The Maikop Pipeline and Transport Company, Ltd.

## EXPECTED INCREASE OF 50 PER CENT. IN THE OUTPUT.

On Monday the fifth ordinary general meeting of the shareholders of the Maikop Pipeline and Transport Company, Ltd., was held at Winchester House, Old Broad Street, E.C., Mr. Cosmo Nevill Peake (chairman of the company) presiding.

The Secretary (Mr. J. Murray) having read the notice calling the meeting and the auditors' report,

The Chairman proposed the adoption of the report and balance-sheet. In doing so he said :—In the first place, I am glad to say that we have been able to get the accounts out considerably earlier this year, and I hope in the future we shall be able to improve in this direction, although you must understand that we are hampered through the fact that most of our records on the other side have to be kept in the Russian language. Turning to the balance-sheet, you will note that shares and debentures allotted in accordance with the agreement with the Mutual Company are now included in the statement of issued capital. The total amount of debentures issued was £237,910, and, as stated in the report, out of the moneys set aside to the debenture sinking fund to the end of December, 1912, and the amounts realised from the sale of plant during the year 1913, a total of £62,613 stock has been redeemed. This, I think you will agree, is a substantial reduction of our debenture debt, and we are, therefore, now paying interest only on £175,297. On this side of the balance-sheet we also show an item of £4,255. 11s. 3d. profit on the debentures which have been redeemed. As explained in the report, this figure represents the difference between the redemption price and the issue price. Against this amount we have written off £1,543. 5s. 11d. expenses in connection with acquiring the undertaking of the Maikop Mutual, and debenture issue expenses of £2,498. 5s. 5d., making a total written off this account of £4,041. 11s. 4d. On the other side of the balance-sheet the capital expenditure on the Ekaterinodar line remains practically as before, and under the heading of Tuapse line £232,189 there are included the assets acquired from the Maikop Mutual Company. The Krimskaya Pipeline stands in our books at £22,360. This item includes pipes, plant and machinery already on hand, which we were able to use for this line and the actual cash expenditure was the cost of the survey and labour. The increase of £10,569. 2s. 11d. in plant, machinery and movable property account represents items to that amount taken over from the Mutual Company. During the year we have spent an additional sum of £1,475. 9s. 10d. in re-laying a portion of the line taken over from the Maikop Mutual Oil Transport Company, making a total of £3,532. 3s. 3d. spent by us on this line. This, in the opinion of our consulting engineers, will considerably increase the efficiency of the line and enable it to withstand more effectively the spring floods. The balance of preliminary expenses, amounting to £1,750. 15s. 6d., has been written off out of the profits of the year, whilst, as I have already mentioned, all expenses in acquiring the Mutual Company's business, and a further item of £2,498. 5s. 5d. have been written off against the profit on redemption of debentures, so that these items will not again appear in the balance-sheet. The amount of £16,406 sundry debtors is an ordinary trade account and most of it has been received since the accounts were made up. Share investments at cost—£24,000—remain unchanged from last year, so far as the balance-sheet is concerned, but I may explain that this sum is now represented by 72,000 fully-paid £1 shares in the Kuban Refining Company, Ltd. The market quotation for these shares—on which we have already received an interim dividend of 2s. per share—is considerably over par, but taking them at 20s. per share, you will see that this investment is of much greater value than the amount at which it stands in the balance-sheet.

Turning to the profit and loss account, the revenue on pumping during the year amounted to £31,633. 0s. 5d., and we have received dividends and interest to the amount of £22,610. 19s. 7d. The quantity of oil pumped during the period covered by the accounts was much less than last year. Fortunately, however, we were able to effect substantial economies in our working cost, and, as a consequence, the net results must be regarded as eminently satisfactory in the circumstances. The total net revenue, in fact, was only £1,600 less than that earned during the previous period. Under the new pumping contracts, the sliding scale has been so adjusted that the company is fully protected when the production is small, and reaps the benefit from the high prices which the producers obtain from their crude. I might observe that the price of Maikop crude oil continues to remain considerably above that of Baku, the price to-day being 47 copecks, against about 45 this time last year. Without going through the items of expenditure in detail, I might point out that the total of our Russian expenses this year was £15,452, whereas last year the figure was £23,986—a direct saving of £8,500. As a matter of fact, the saving is rather better than this, because included in this year's expenses is an item for £1,007. 7s. 11d. legal charges in connection with the taking over the properties of the Maikop Mutual, and it will not recur. With this exception, the items shown in the Russian expenses are standing charges, which are not dependent on the amount of oil carried. They are always existent, whether we pump a small or a large quantity, so I think you will agree that the reductions we have been able to effect are exceedingly gratifying. I am also glad to report a considerable decrease in the London charges. The total expenditure on this side amounted to £4,282, as compared with £5,784 in the last year's accounts. The directors' fees for the period under review were £1,352, as compared with £2,051 the previous year. The net profit on the year's working, added to the amount brought forward from the previous accounts, £11,122. 19s., makes the total amount available for appropriation £31,746. 1s. 11d. This has been allocated in the following way :—£1,750. 15s. 6d. to writing off of the balance of preliminary expenses, £20,000 to depreciation reserve and £9,995. 6s. 5d. to the sinking fund for redemption of debentures. Under the terms of the trust deed, after providing for depreciation, we are bound to place out of profits a sum up to £27,500 per annum to the debenture sinking fund. You will see that the sums placed by the directors to depreciation account and for buying in debentures total £29,995. 6s. 5d., which is somewhat in excess of the sum which we are bound by the trust deed to place to sinking fund if it is available. I do not think there is anything more in the accounts that calls for explanation, but, of course, I shall be glad to try to deal with any points of which shareholders may require further information.

Turning to our general business, I am glad to say there is a big improvement in the general position of the Maikop field since last I had the pleasure of addressing you. The developments referred to in the report with respect to the deep drilling discoveries in Khadijensky will undoubtedly have far-reaching results. Not only has the well on plot 108—which is now flowing at about 500 poods daily—demonstrated that oil in good commercial quantities can be obtained at Maikop from a depth of over 2,000 ft., but, more important still, the well on the adjoining plot 120 drilled by the Anglo-American Corporation and its allied companies has reached the same source, and, according to the latest telegram, the well is at 2,274 ft. The latest news is that there is 1,150 ft. of oil in the well, with very strong gas. Recent events in Shirvansky have been equally encouraging. Many people seem to think that the light oil in this district is obtained from what is commonly called a "pool," and that the oil-sand is confined to a very small area. On the contrary, what is known as the light oil source in Shirvansky, so far as we know up to the present, is found on the plots of no less than five companies over an area nearly two miles in length. Several of the wells recently drilled by the Maikop Victory on otvod 170 and the Maikop Premier on otvod 21 have established a considerable extension of this source. The oil is found at a greater depth the further north the wells are drilled, the latest producing wells being about 960 ft. deep.

At the last annual meeting I dwelt at some length on the importance of the Eastern part of the field, and explained the difficulties which were experienced there in the shutting off of the water sources above the oil horizon. I am pleased to say that this obstacle—a very real one, as all who understand anything of the oil business will readily admit—has now been overcome, and the result is that good producing wells are being brought in in the eastern part of the field. The Maikop New Producers, Ltd., have already two wells on plot 534, giving an output from this source, and a new well drilled by the same company has just reached the oil on plot 554—the most easterly part of the field on which oil has yet been discovered. Oil has also just been struck by the Black Sea Oilfields in this district. A very active drilling programme is being carried out by the companies of the Anglo-Maikop Group, and there is, I think, no question that the result of all this work will soon be shown in increased pumping returns.

Turning now to the Krimskaya field, I am not yet able to make any definite statement in regard to that district. Everything, however, shows that we should eventually have to deal with a large body of oil there. Up to the present time the operating companies have been faced with technical difficulties which even now have not been altogether overcome. An encouraging fact, however, is that in every well oil has been struck. A regularly defined oil source exists from which a production in commercial quantities is obtainable. There is also, from all indications, a most prolific lower source, but we have no knowledge at present as to the extent of its area. Further wells, however, are being bored, and in the opinion of our technical advisers there is no question that Krimskaya will ultimately produce on a considerable scale. I may say the opinions as to the possibilities of Krimskaya are not confined to our own experts and engineers, because, as mentioned in the report, several Baku firms have acquired land adjoining the present productive area, and are preparing to drill on an extensive scale.

There is only one other matter with which I have to deal, and that is, the resolution to be placed before you at the extraordinary general meeting following this one, giving the company powers to undertake the supply of water to the oilfields. This branch of the transport business is one which we have had under consideration for some time, as it can be very easily and profitably combined with our existing operations. Moreover, our present organisation is quite capable of handling the same without any additional administrative expenses. A proposal has been made to us to take over an existing water line installation, and as the trustees for the debenture-holders have certain moneys in hand from the sale of surplus plant which has not been applied in the redemption of debentures, the directors and trustees concur in the opinion that it is in the interests of all concerned to take advantage of the opportunity placed before them. The proposals do not in any way entail the putting up of additional capital, but to all intents and purposes it will be an investment in a remunerative business of money realised from the sale of plant which was lying idle. The probable return on our capital investment will be about 20 per cent. per annum, and this revenue will, of course, accrue to the company. Unfortunately, our memorandum of association limits us to the transport of oil, and it has therefore been necessary to call the extraordinary general meeting, which will be held following this meeting, to approve of the required alterations. I will now ask Mr. Tweedy to second the adoption of the report and accounts.

Mr. George Tweedy, in seconding the resolution, said: Gentlemen, I have much pleasure in seconding the resolution for the adoption of the report and accounts. I do not think it is necessary for me to emphasise the fact that we have at the present time a monopoly of the oil transport from the field, and it follows that, if Maikop is successful, the shareholders of this company will receive a handsome return on their investment. As I have repeatedly stated, in the development of an oilfield not only is intelligent, unceasing work necessary, but there must also be patience on the part of all concerned. There is no oilfield that has not passed through—from the point of view of the shareholder—trying times. The oil industry abounds in examples of long and expensive work before a new district has been put on a sound commercial basis. I cannot too strongly impress upon you the impossibility of properly exploring an oilfield and proving its value in so brief a period as that in which we have been conducting operations at Maikop, and at such a small actual cost. It is sometimes a hard task to remove from the minds of the public the impression that, because the field at the present time is not giving a larger production, Maikop is a failure. The actual position is quite the reverse. As most of you know, operations commenced late in 1909, and I make bold to say that the results achieved to date show that Maikop compares favourably with even the most successful oilfields of the world. I have quoted figures to prove this at previous meetings, but I should like to give you one or two more. Let us take the early history of the Mexican field. Drilling started about 1883, but not until 1907 did it figure in the list of the world's producing oil fields, and then, after over 20 years' exploitation, the production was only eight million poods per annum. To-day Mexico has a production of over 200 million poods per annum. Take another example—that of Grosny, where the early history is very similar to that of the Maikop field. I will read you what a well-known Russian Government mining engineer, Mr. Youshkin, has to say about this field, in his work entitled "The Commencement of the Grosny Oil Industry":—"The number of abandoned wells in Grosny 3½ years after the commencement of boring work was considerable. Work had been done without properly shutting off the water; wells had been placed in hopeless positions, so it is not to be wondered at that in 1898 the Grosny district was discredited, and that nearly all the Grosny oil producers wanted to sell their properties." Well, gentlemen, Maikop has, in my opinion, just passed through the position in which Grosny was in 1898. Last year the output from that field was 73½ million poods, and, as the productive area has been still further extended during the last few months, this year should exceed all records.

Take again the Persian oilfields, which are at present very much in the public eye. The original concession dates from 1901. Active exploitation work, I believe I am right in saying, was commenced in 1903. Enormous sums of money were spent in exploratory work, but it has taken eleven years to place the undertaking in the enviable position in which it is to-day. Bearing all this in mind, it is ridiculous to suggest that the results of the four years during which Maikop has been under exploration form a correct basis for adverse conclusions regarding the prospects of the field. During the past few weeks (as the Chairman has already mentioned) we have received news which I consider proves that oil exists at depth in payable quantities. These discoveries have been made in totally different districts, over 14 miles apart, and are an indication of what may be expected as a result of careful and systematic drilling. Some of my friends have asked me, "When may we expect another fountain?" In answer to that I will repeat what I said at a meeting three years ago:—"My theory is that we should take bailing wells as the basis for calculating profits, and fountain wells as exceptions." As you know, I have spent much time at Maikop since 1909 and have only recently returned from this field. My considered opinion, after all I have seen, and after the study of many reports by geologists and engineers, is that while Maikop to-day is still in the exploratory stage, it will eventually take a prominent place amongst permanent producing oilfields. The carefully tabulated data obtained from the extensive operations of the companies associated with the Anglo-Maikop group (knowledge which has cost these companies a large amount of money) have enabled them to locate wells in such positions that they can be almost certain of obtaining successful results, and, with this knowledge at my disposal, I have taken upon myself to try to arrive at the probable production in the early future. I have no hesitation in saying that, with moderate weather, the production within the next few months should gradually show an increase of at least 50 per cent. over the present output. I venture to say this is a happy position, but it has only been brought about by the dogged perseverance of those companies to which I have referred, and the steady refusal on their part to admit defeat simply because of a few failures, due rather to mismanagement than to the absence of oil. I beg to second the resolution.

Mr. Henderson Bull asked what quantity of oil was produced during the year on the field.

Mr. Tweedy said the quantity mentioned in the report was 4,167,060 poods. That was the total amount produced over and above what was used for fuel and what was sold to local consumers.

Mr. Bull said he thought the expenses on the field excessive.

The Chairman said the expenses had been brought down to what might be called rock-bottom level. They had a regular staff there, and it could not be reduced.

Mr. Alfred Hicks said there was a reduction in the expenses in Russia last year of £8,500, and a total reduction in the cost of carrying on the company of over £14,000.

Mr. Ellis, referring to the item of depreciation, said he thought the profits should be stated after the allowance for depreciation was made.

The Chairman said it was only a matter of form, and he did not agree with the shareholder's remarks. It was an appropriation of profit.

Mr. Alfred Hicks said the question of depreciation was always a difficult one to settle, but he would remind shareholders that a very large amount had been spent during the year on the upkeep of plant and in keeping the whole of the plant in good running order. They might have said that under those circumstances it was unnecessary to write off any depreciation for it, and then they could have shown a much larger profit.

The resolution was carried unanimously.

The Chairman moved that Lord Bingham (now Lord Lucan) should be re-elected a director. This was seconded by Mr. George Tweedy and carried unanimously.

Messrs. Harmood Banner & Son were re-elected auditors.

# COMPANY REPORTS AND MEETINGS.

## THE ANGLO-ROUMANIAN PETROLEUM COMPANY, LTD.

THE report of the Anglo-Roumanian Petroleum Company, Ltd., for 1913, to be presented at the meeting next Tuesday, states that the gross profit for the year amounted to £26,047, and deducting the expenses payable in London there remains £22,671. After making the usual allowances for depreciation, providing £915 for debenture interest and writing off the balance of preliminary expenses account, £4,875, the net profit for the year amounts to £11,243, which, with £8,729 brought forward, makes a total of £19,973 standing to the credit of profit and loss account. Of this amount the board proposes to place £8,500 to reserve account, to pay a dividend of 5 per cent., which will absorb £7,500, and to carry forward £3.973. Owing to the atisfactory financial position of the company the directors found t unnecessary to call up the debentures in full. The production of crude oil was 12,973 tons, which is slightly in excess of that or 1912. The Balkan war greatly interfered with the company's work, and the development programme was entirely suspended or a considerable time in consequence of the shortage of labour and complete lack of transport facilities, owing to the Roumanian mobilisation. The policy of the board in deciding to drill to he deeper oil source in Bordeni has been amply justified. Well No. 28 came into production in October last at 408 metres, and o May 31st has given over 7,400 tons from this source. Wells Nos. 17 and 24 are also down to the same oil source and have ommenced to produce. The well at Gropi is now at 470 metres, but drilling has been delayed owing to a casing accident. This, however, should shortly be overcome and deepening resumed. n the Runcu district, well No. 1 has reached a depth of 202 metres. The market prices for crude oil during the year kept ery firm, with consequent benefit to the company.

## THE OKLAHOMA OIL COMPANY, LTD.

THE report of the Oklahoma Oil Company, Ltd., to be submitted to the meeting on Monday next, states that during the ear to April 30th there has accrued due to the Oklahoma Oil ompany, Ltd., from the Canadian Oil and Gas Company for ividends and bond interest referred to below a sum of £11,324, which, with sundry small payments made, bringing the amount o £11,269, has been more than discharged by remittances from hat company. At the close of last year there was a balance ue to this company from the Canadian Oil and Gas Company n advances account of £4,482. Adding the above-mentioned um of £11,269 gives a total of £15,752. During the year the ompany has received by way of remittances the sum of $60,000, r in sterling, £12,323, leaving £3,429, which will be settled for due course. During the year under review the following eturns have been received on the investments in the Canadian il and Gas Company:—In respect of the results of the 1913 perations of that company.—Dividends on share capital, 128 er cent., or $32.00 per share, $44,800, which, with the interim vidend taken into last year's accounts, makes a total distribuon by that company for the year 1913 of 142 per cent., or 35.50 per share; interest on bonds, $10,125, makes total ceipts of $54,925, or, at $4.85 exchange, £11,324. Deduct om this the administrative and other expenses, amounting in all £1,584, less sundry interest receipts and transfer fees, £527—,057—leaves a balance of profit for the year of £10,267. Add he amount carried forward from last year, £216, gives a balance vailable for appropriation of £10,484. After providing for the terim dividend of 9d. per share, paid on November 1st, 1913, bsorbing £3,825, there remains a balance of £6,659, which the oard proposes to deal with as follows:—1. In distribution of a cond and final dividend for the year of 9d. per share, £3,825. In writing off the balance of the preliminary expenses, viz., ,581. 3. To carry forward £252. The directors point out at they are frequently having oil propositions put before them, oth in Oklahoma and elsewhere, but, owing to lack of available pital, have not been able to deal with them. They therefore opose asking the shareholders to pass a special resolution creasing the share capital of the company to £180,000 by the reation of 30,000 Seven-and-a-Half per Cent. Convertible eference Shares of £1 each.

## THE ASSAM OIL COMPANY, LTD.

THE fifteenth report of the directors of the Assam Oil Company, d., to be presented at the sixteenth ordinary general meeting the company next Wednesday, and which covers the past year's erations, states that the progress made at the drillery since the date of the last report has been satisfactory. The production of crude oil in 1913 shows a big increase on any previous year. The development of the field at Hansa Poong has been pushed on, the line has been completed and in use for some time, and the first well has been sunk to a fair depth. Several oil shows were passed, and work has now been suspended while the lowest is being tested. So far as can be judged, the indications are very hopeful.

In order to deal with the larger quantity of crude oil coming forward, a new refrigerating machine has been ordered at the refinery and some more wax-sweating houses built. An increase has been made in the power house, three new semi-Diesel oil engines having been shipped, and work will be commenced shortly on a new bench of stills.

Prices remained steady at a remunerative figure during 1913, and the prospects for the present year are favourable.

The profit earned during 1913 amounted to £31,786. 0s. 10d. To this has to be added the amount brought forward from 1912, making a total available of £37,305. 6s. 9d. The interim dividend on the preference shares, amounting to £2,589. 18s. 5d., and the final dividend, amounting to £2,726. 6s., were paid on their due dates. The directors have transferred £10,000 to depreciation account, and have written £3,000 off preference capital issue expenses. They propose to pay a dividend of 1s. per share on the ordinary shares, less income tax, which will absorb £15,500, carrying forward the balance of £3,489. 2s. 4d.

The directors greatly regret that Sir Thomas Bowring has been compelled to resign his seat on the board owing to ill-health. Sir Thomas has been a member of the board since the formation of the company, and the directors will greatly miss his valuable advice and assistance. They have elected Mr. Clive Bowring, a director of the Bowring Petroleum Company, Ltd., and the Eagle Oil Transport Company, Ltd., to the vacant seat, and the shareholders will be asked to confirm the appointment at the general meeting.

Lord Ribblesdale and Sir Annesley C. C. de Renzy are the directors retiring by rotation, and, being eligible, they offer themselves for re-election.

## CANADIAN OIL AND GAS COMPANY.

THE report of the Canadian Oil and Gas Company states that the company acquired during the year to December 31st 2,842 acres in the most favourable districts, and surrendered 415 acres, the same having been condemned by neighbouring development. At the end of the accounting year the company had leases on 4,859 acres of producing and reserve land, including proportions of part interests, at a net cost, after charging cost of leases surrendered and depreciation, of $30,154.55. The expenditure on wells account brought forward from 1912 was $180,933; during the year a further expenditure was incurred of $58,803, making a total of $239,737, from which has been deducted:—Depreciation at the rate of 10 per cent. on cost of wells in operation, $28,269; experimental and non-productive wells written off to development account, $6,072; leaving a net balance on December 31st, 1913, of $205,394; the total number of productive wells at the opening of the year was 94; further new wells have been sunk during the year, numbering 17, total 111; less wells abandoned, 2, leaving 109 productive wells, in addition to which the company has a part interest in five producing wells. A further four wells were in process of drilling at the end of the year, three of which have since been completed, and are now producing. The production and sales during the year, after charging royalties, were as follows:—Production, 181,209.66 barrels; sales, $175,386.79. The average price per barrel realised during 1912 was 71 cents, against an average realisation in 1913 of 96·7 cents. The selling value of oil has risen from 83 cents per barrel at the beginning of the year to $1.03 per barrel at the close, but the increase was gradual, and extended over the year, and consequently the higher prices were realised for the later sales only. The profit and loss account shows $72,432 as profit, resulting from the year's operations after writing off $47,184 for depreciation and $8,779 for non-productive development expenditure. To this sum must be added the amount of $527 carried forward from last year. There has been declared during the year interim dividends amounting to 102 per cent., absorbing $35,700. There is thus a balance available for further distribution of $37.259. The following programme is projected for 1914:—It is proposed to drill nine additional wells on the present leases held, and to acquire additional leases with the object of maintaining the reserve territory for future development.

# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. Benjamin & Co., 61, St. Mary Axe, E.C.

June 19th, 1914.

The prices of Refined Petroleum are quoted as follows:—Russian, 7d.; American, 7¼d.; American Water White, 8¼d.; Roumanian, 6¾d.; Galician, 6¾d.

### LUBRICATING OILS

are quoted for:—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The market price is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is quoted 70s. per ton, in bulk, ex wharf.

### GAS OIL.

The official price is 3d. per gallon, in bulk, ex wharf

### MOTOR SPIRIT.

1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality, are the retail prices in London.

### TURPENTINE.

The Turpentine market is easier. American spot, 33s. 6d.; July/August, 33s. 9d.; September/December, 34s. 6d.; January/April, 35s. 4½d.

## LIVERPOOL.

June 18th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## AMERICA.

New York, June 18th.

Refined, in cases, is still quoted at 11·10; Standard White, 8·60; Credit balances, 1·90.

Philadelphia, June 18th.

Standard White is quoted at 8·60.

## RUSSIA.

Baku, June 18th.

The market is abnormal owing to the general strike at the field. The latest quotations are:—Crude oil, 37½ copecs per pood spot. Kerosene, 48 copecs. Residuals, 40–40½ copecs.

## ROUMANIA.

June 16th.

The export of petroleum is for the moment very restricted. The latest prices are:—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·40 |
| ,, ,, ,, | Moreni ... | 7·20–7·50 |
| ,, ,, ,, | Tzintea ... | 5·80–6·50 |
| ,, ,, ,, | Policiori... | 6·25–6·50 |
| ,, ,, ,, | Bordeni ... | 8·75–9·00 |
| ,, ,, ,, | Bana ... | 9·00–9·50 |
| ,, ,, ,, | Baicoi ... | 7·50–8·50 |
| Paraffin ... ... ... ... ... | | 120 |

Prices for Export.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| ,, sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| ,, sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| ,, sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... .. ... ... ... ... | 8·00 |

## GERMANY.

Hamburg, June 18th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

June 16th.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

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## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, London, E.C., report, under date June 18th, as under:—

The market remains quiet, makers' prices for oil sizes being to day

Ic 18¾×14 124 sheets 110 lbs. ... 12/7½ per box.
Ic 20 ×10 225 ,, 156 ,, ... 17/6 ,,

F.o.b. Swansea. Tin lining and iron hooping extra.

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## DETAILS OF GROSNY PRODUCTION AND BORING DURING FEBRUARY.

The following table gives the details of production of petroleum on the Grosny fields, together with the number of productive wells and the new depths bored during the month:—

| Firms. | Number of Plots. | Number of Producing Wells. | Production (in poods). | Including Spouting. | New Depths Bored (feet). |
|---|---|---|---|---|---|
| Akhverdoff Company ... ... | 17 | 91 | 2,405,200 | — | 3,192 |
| Spies Company ... ... | 22 | 55 | 1,140,335 | — | 3,942 |
| North Caucasian .. . | 8 | 30 | 1,545,700 | 708,350 | 4,802 |
| Russian Standard ... ... | 9 | 45 | 1,229,000 | 273,460 | 287 |
| A. I. Putiloff ... ... ... | 4 | 16 | 232,500 | 3,000 | 945 |
| Anglo-Russian Maximoff Company .. ... ... ... | 2 | 21 | 161,800 | — | 623 |
| Tcheleken-Daghestan Company | 4 | 23 | 170,510 | — | 2.968 |
| Moscow Petroleum Company ... | 1 | 7 | 56.450 | — | 434 |
| E. P. Tikhomiroff ... ... | 1 | 7 | 83.475 | — | 609 |
| Caspian & Black Sea Company | 1 | 3 | 22,750 | — | — |
| St. Petersburg Petroleum Company ... ... .. ... | 3 | 11 | 14,115 | — | 252 |
| T. V. Belozerski ... ... | 1 | 1 | 1,400 | — | 175 |
| Anglo-Terski Petroleum Company ... ... ... ... | 1 | 1 | 100 | — | 7 |
| A. Kraizevitch... ... ... | 2 | 3 | 320,757 | 251,800 | 1.551 |
| E. K. Grube ... .. ... | 1 | 1 | 2,789 | 2,789 | 2,051 |
| Zaturoff Bros. ... ... ... | — | — | — | — | 315 |
| N. I. Faivishevetch ... ... | — | — | — | — | 1,610 |
| New Aramazd Society ... | — | — | — | — | 483 |
| Russian Asiatic Company ... | — | — | — | — | 161 |
| Petroleum Exploration Company ... ... ... ... | — | — | — | — | ? |
| Baku-Grosny Company ... | — | — | — | — | 357 |
| M. Mukhtaroff .. ... ... | — | — | — | — | 126 |
| Totals ... ... | 77 | 315 | 7,386.881 | 1,239,399 | 24,893 |

BORE HOLES *for* OIL
Contracted for by
**JOHN M. THOM,**
Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# The American Oil Market.

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### Saturday, June 6th, 1914.

After a brief check to its weakening course, the crude market has, says the *Oil Paint and Drug Reporter*, during the week given evidence of the depressing factors which have characterised it over the last two months. The late declines have been confined to the high-grade Pennsylvania oils, and are summarised as follows :—

| | Previous week. | Current week. | Date of change. |
|---|---|---|---|
| Pennsylvania ... ... | $1.90 | $1.80 | June 1 |
| Cabell ... ... ... | 1.47 | 1.40 | ,, 1 |
| Mercer, black ... ... | 1.40 | 1.35 | ,, 1 |
| New Castle... ... ... | 1.40 | 1.35 | ,, 1 |
| Corning ... ... ... | 1.05 | 1.00 | ,, 1 |

The week's operations in Eastern fields have been marked by a heavy decline in completions, although the new production total shows a substantial gain. The weakening course of the crude market, it is believed, is being more reflected upon field work. All of the fields in the Eastern grouping registered fewer completions, with the exception of Kentucky, which was on a par with the record of the previous week. The gain in new production was due entirely to the Illinois field. Kanawha county, West Virginia, has maintained first place in the new production record of the high-grade fields. The best new well of the week in Kanawha county was in the new Weir sand development in the Elk district, about one mile from production. The well was credited with 300 barrels a day. Harrison county, in the same State, is the next best field. In the Sardis district a well which when first drilled in yielded 200 barrels a day, increased its capacity to 520 barrels the first twenty-four hours as a result of deeper drilling. One of the recent wells is reported to be holding up at 400 barrels a day. Hocking and Fairfield counties contribute the most favourable results in the South-eastern Ohio fields, and the regularity of the producing sands encourages steady drilling. The prospects are regarded favourable for extending the limits of the Hocking county fields.

The week's advices from the Mid-continent field indicate a slackening of drilling, with prospects of further abatement during the summer. The Cushing pool holds the centre of the stage, and the week's operations there have been marked by what is reported as the largest producer so far drilled, starting at 260 barrels an hour. The Cushing output is now regarded as the largest of any high-grade oilfield yet developed, and the discovery of a new extension to the north-west may be the means of a further substantial gain. On the other hand, it is stated that the head of the pool is going off fast, the rock pressure having gone from 700 to 300 lbs. The possibilities of the pool are still involved in uncertainty.

The week's review of the Texas-Louisiana fields showed no practical difference in completions, but the new production fell materially below that of the former week. Considerable wildcat drilling is in progress throughout the fields, but so far no significant strikes have been noted. The Sour Lake district has furnished the best general results. Two of the wells came in at 2,000 and 1,700 barrels a day respectively. In the De Soto district, Louisiana, a 3,600-barrel well was drilled, while in the Red River district the only completion was credited with an initial output of 3,000 barrels.

## Refined Products.

There has been no recent variation in local quotations for illuminating oils either for domestic or export trade, but the general market continues unsettled, with a further decline of 5 to 10 cents in high-grade crude contributing to the unfavourable conditions. Competition has developed to unusual keenness. Domestic requirements comprise light routine proportions at this season. The export movement was slow, clearances amounting to 3,328,690 gallons, as against 12,277,145 gallons previously. The absence of tank steamers available for ready loading has been the occasion for the shrinkage in exports, all of the current clearances being in cases.

### CLOSING QUOTATIONS.

CRUDE AT THE WELLS.

The quotations for oil represented by credit balances were :—

| | 1913. June 6. | 1914. June 6. |
|---|---|---|
| Pennsylvania ... ... ... ... ... | $2.50 | $1.80 |
| North Lima ... ... ... ... | 1.37 | 1.19 |
| South Lima ... ... ... ... | 1.32 | 1.14 |
| Indiana ... ... ... ... ... | 1.32 | 1.14 |
| Illinois ... ... ... ... ... | 1.30 | 1.15 |
| Kansas and Oklahoma ... ... ... | 0.88 | 0.75 |
| Humble, Tex. ... ... ... ... | 0.90 | 0.45 |
| Saratoga ... ... ... ... ... | 0.90 | 0.50 |
| Sour Lake, Tex.... ... ... ... | 0.85 | 0.45 |
| Californian, Coalinga light ... ... | — | 0.85 |
| ,, Kern River heavy ... | — | 0.40 |
| CANADIAN OIL ... ... ... ... | 1.77 | 1.64 |

REFINED—FOR EXPORT.

| In cents. | | Week ended June 6. S.W. 110 test. | W.W. 150 test. |
|---|---|---|---|
| Bulk, New York ... | per gal. | 5·00 | 6·00 |
| Barrels, New York, cargo ... ... | | 8·50 | 9·50 |
| Barrels, Philadelphia ... ... ... | | 8·50 | 9·50 |
| Cases, New York ... ... ... | | 11·00 | 12·00 |
| Cases, Philadelphia ... ... ... | | 11·00 | 12·00 |

NAPHTHA AND GASOLINE.

| | |
|---|---|
| Naphtha, in wooden barrels ... ... ... ... | 18 |
| Gasoline, 86 deg. ... ... .. ... ... | 26 |

REFINED IN CASES—110 FIRE TEST.

| | |
|---|---|
| 5,000 to 10,000 ... ... ... .. ... ... | $11.15 |
| 1,000 to 3,000 ... ... ... ... ... ... | 11.25 |

REFINED—JOBBING LOTS.

In barrels, pkgs. included.

| | |
|---|---|
| 130 fire test, S.W. ... ... ... ... ... | 11½ |
| 150 fire test, W.W. ... ... ... ... ... | 12 |
| From tank wagons ... ... ... ... ... | 9 |

### TOTAL EXPORTS.

| | Current week. Gallons. | Since Jan. 1, 1914. Gallons. | Since Jan. 1, 1913. Gallons. |
|---|---|---|---|
| Crude ... ... | 869,255 | 148,192,840 | 66,764,009 |
| Refined ... ... | 13,869,825 | 314,225,063 | 353,676,967 |
| Naphtha ... | 728,745 | 61,289,355 | 57,057,950 |
| Gas oil ... ... | 1,441,285 | 24,587,950 | 19,800,855 |
| Fuel oil... ... | 4,590,030 | 25,314,935 | 34,810,695 |

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# IMPORTS OF PETROLEUM PRODUCTS INTO SWEDEN.

The imports of petroleum products into Sweden during February amounted to 7,914 tons. The imports of the various products were as follows :—

| | Tons. |
|---|---|
| Kerosene ... ... ... ... ... | 5,485 |
| Paraffin ... ... ... ... ... | 167 |
| Other products ... ... ... ... | 2,262 |
| Total ... ... ... ... ... | 7,914 |

# Imports of Petroleum Products into the United Kingdom.

**Specially prepared for this Journal by the Customs House. All Rights Reserved.**

FOR THE WEEK ENDED JUNE 15TH, 1914 (excluding any Imports which may not be disclosed)—

| Date. | Port and Importers. | Description. | No. of Gals. | Port Whence. |
|---|---|---|---|---|
| June. | LONDON— | | | |
| 9 | Vacuum Oil Co. | Lub. | 200 | Hamburg |
| 9 | Port Authority | " | 3,500 | " |
| 9 | J. Harrison | " | 80 | Antwerp |
| 9 | Anglo-American Oil Co. | " | 960 | New York |
| 9 | Trinidad Lake Asphalt Co. | Lub. Resid. | 7,260 | N. News |
| 10 | Snowdon, Sons & Co. | Lub. | 40 | Antwerp |
| 10 | Mercantile Lighterage Co. | " | 7,160 | New York |
| 11 | Port Authority | " | 400 | Hamburg |
| 11 | Union Lighterage Co. | " | 3,000 | N. Orleans |
| 11 | United Shipping Co. | " | 120 | Riga |
| 13 | E. G. Boize | " | 570 | Hamburg |
| 13 | Port Authority | " | 2,600 | " |
| 13 | London Oil Storage Co. | " | 16,000 | Dunkirk |
| 13 | A. V. Benter & Co. | " | 3,000 | " |
| 13 | H. P. Wheatley & Co. | Benzine | 825,000 | Port Arthur |
| 13 | Mercantile Lighterage Co. | Lub. | 6,000 | New York |
| 13 | Barrett, Tagant & Gotts | " | 3,000 | " |
| 13 | Snowdon, Sons & Co. | " | 1,310 | Antwerp |
| | LIVERPOOL— | | | |
| 7/5 | Anglo-American Oil Co. | Gas | 59,500 | Sabine |
| 16/5 | " " | Lamp | 83,720 | New York |
| 9 | A. Hopps & Sons | Lub. | 10,700 | Baltimore |
| 9 | Fellows, Morton & Clayton | " | 3,440 | Philadel. |
| 9 | F. Schofield & Co. | " | 4,000 | " |
| 9 | Bennett's Haulage, etc., Co. | " | 9,090 | " |
| 9 | Huxley & Co. | " | 370 | Ghent |
| 9 | " | " | 990 | Hamburg |
| 9 | " | " | 1,080 | New York |
| 9 | J. T. Fletcher & Co. | " | 240 | Antwerp |
| 9 | Anglo-American Oil Co. | Gas | 404,960 | New York |
| 10 | D. Currie & Co. | Lub. Gr. | 180 | Hamburg |
| 10 | Crew, Levick & Co. | M. Colza | 6,400 | Baltimore |
| 10 | Pickford's | Lub. | 2,680 | " |
| 10 | Swan, Finch & Co. | " | 1,200 | New York |
| 11 | C. C. Wakefield & Co. | " | 5,340 | Baltimore |
| 11 | Pickford's | Lub. Oil and Paste | 470 | Hamburg |
| 11 | G. B. Taylor | Lub. | 1,680 | " |
| 12 | F. Schofield & Co. | " | 5,200 | Baltimore |
| 13 | Liverpool Warehousing Co. | " | 2,000 | New York |
| 15 | Pickford's | Lub. Oil and Paste | 350 | Hamburg |
| 15 | Worthington & Boler | Lub. | 8,800 | New York |
| 15 | H. Hamilton & Co. | " | 80 | Antwerp |
| 15 | Anglo-American Oil Co. | " | 20,640 | New York |
| 15 | Meade-King, Robinson & Co. | " | 2,800 | " |
| 15 | Vacuum Oil Co. | Lub. Gr. | 9,240 | " |
| 15 | " | Lub. | 20,640 | " |
| | BOSTON— | | | |
| 12 | W. F. Beaumont | " | 420 | Hamburg |
| | BRISTOL— | | | |
| 11/5 | British Petroleum Co. | Lamp | 4,380 | N. Orleans |
| 9 | H. Matthews & Co. | Lub. Gr. | 40 | Antwerp |
| 9 | Pickford's | Lub. | 500 | " |
| 10 | J. & R. Bush | " | 7,200 | New York |
| 12 | British Petroleum Co. | Lamp | 509,700 | Port Arthur |
| 12 | " " | Gas | 293,800 | " |
| | GRIMSBY— | | | |
| 12 | J. Sutcliffe & Son | Lub. | 150 | Antwerp |
| | HARWICH— | | | |
| 8 | Great Eastern Railway | " | 240 | " |
| | HULL— | | | |
| 9 | T. M. Roberts & Co. | " | 500 | " |
| 9 | Asiatic Petroleum Co. | Benzine | 716,800 | Singapore |
| 10 | T. Wilson, Sons & Co. | Lub. | 28,880 | New York |
| 11 | " " | " | 2,000 | S. Petersburg |
| 11 | W. Gilyott & Co. | " | 13,820 | New York |
| 11 | Wilson's & N. E. Railway | " | 1,040 | Hamburg |
| 11 | T. Wilson, Sons & Co. | " | 40 | Stettin |
| 11 | Hull & Netherlands S.S. Co. | " | 360 | Rotterdam |
| 11 | Wilson's & N. E. Railway | " | 600 | Antwerp |
| 13 | Asiatic Petroleum Co. | Fuel | 650 | Suez |
| 15 | Wilson's & N. E. Railway | Lub. | 400 | Antwerp |
| 15 | " " | " | 40 | Ghent |
| | MANCHESTER— | | | |
| 9 | G. B. Taylor | " | 1,790 | Riga |
| 9 | T. Wilson, Sons & Co. | " | 1,000 | " |
| 9 | Liverpool Storage Co. | " | 2,600 | Philadel. |
| 9 | Anglo-American Oil Co. | Fuel | 418,180 | New York |
| 9 | " " | Gas | 134,990 | " |
| 9 | J. T. Fletcher & Co. | Lub. Gr. | 100 | Antwerp |
| June. | MANCHESTER— | | | |
| 11 | Worthington & Boler | Lub. | 5,170 | Philadel. |
| 11 | " " | " | 1,890 | New York |
| 11 | McLiners, Ltd. | " | 13,020 | Philadel. |
| 11 | Meade-King, Robinson & Co. | " | 22,000 | " |
| 11 | Worthington & Boler | Other Sorts | 1,650 | " |
| 11 | Liverpool Storage Co. | Lub. | 2,000 | New York |
| 11 | Lamport & Holt | " | 3,390 | " |
| 11 | Liverpool Storage Co. | " | 2,500 | " |
| 11 | W. W. Jones, Dooly & Co. | " | 5,650 | " |
| 11 | D. Currie & Co. | " | 80 | Hamburg |
| 12 | Liverpool Storage Co. | M. Colza | 10,680 | Philadel. |
| 12 | Anglo-American Oil Co. | Lub. Gr. | 2,000 | " |
| 12 | Bramwell, Fern & Co. | Lub. | 22,980 | " |
| 12 | D. Currie & Co. | " | 600 | Hamburg |
| 13 | G. B. Taylor | " | 600 | " |
| 15 | Crew, Levick & Co. | " | 21,420 | Philadel. |
| 15 | " | M. Colza | 3,340 | " |
| 15 | F. Schofield & Co. | " | 3,220 | " |
| 15 | Diamond Lubricating Co. | Lub. Gr. | 2,750 | New York |
| 15 | G. B. Taylor | " | 480 | " |
| 15 | F. Schofield & Co. | Lub. | 3,280 | Philadel. |
| | NEWCASTLE— | | | |
| 9 | P. H. Matthiessen & Co. | " | 240 | Bergen |
| 11 | Tyne-Tees Steamship Co. | " | 2,600 | Hamburg |
| 11 | " " | " | 3,400 | Antwerp |
| 12 | P. H. Matthiessen & Co. | " | 400 | Bergen |
| | MIDDLESBROUGH— | | | |
| 10 | J. J. Sutherland & Co. | " | 1,680 | Antwerp |
| | GLASGOW— | | | |
| 9 | Allan Bros. & Co. | " | 11,400 | Philadel. |
| 12 | " | " | 6,920 | Boston |
| 15 | Anchor Line | " | 5,520 | New York |
| | GRANGEMOUTH— | | | |
| 10 | Jas. Currie & Co. | " | 920 | Hamburg |
| 13 | Jas. Rankine & Son | " | 520 | Antwerp |
| | LEITH— | | | |
| 9 | G. Gibson & Co. | " | 500 | Ghent |
| 11 | Jas. Currie & Co. | " | 120 | Hamburg |
| 12 | G. V. Turnbull & Co. | Lub. Gr. | 820 | Philadel. |
| 12 | " " | M. Colza | 6,660 | " |
| 12 | " " | Lub. | 40,880 | " |
| 13 | Jas. Currie & Co. | " | 1,120 | Hamburg |
| 15 | " | " | 480 | " |
| | BELFAST— | | | |
| 10 | J. C. Pinkerton & Co. | Lub. Oil and Gr. | 600 | " |
| 13 | British Petroleum Co. | Lamp | 238,000 | Port Arthur |
| 13 | " " | Gas | 650,000 | " |
| | LIMERICK— | | | |
| 1/5 | Limerick Steamship Co. | Lamp | 29,400 | " |
| | | | 4,817,090 | |
| Deduct— | | | | |
| | LIVERPOOL— | | | |
| 12/5 | Anglo-American Oil Co. | Lub. | 2,480 | New York |
| | BRISTOL— | | | |
| 12/5 | Anglo-American Oil Co. | Fuel | 12,900 | Kustendje |
| | GLASGOW— | | | |
| 5/5 | Anchor Line | Lub. | 2,000 | New York |

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# The Petroleum Review.

*Founded by* PAUL DVORKOVITZ.

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## THE PETROLEUM REVIEW.

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*The ANNUAL SUBSCRIPTION for both English and Foreign readers is 26s., including Postage. Single Copies may be had at the offices at 6d.*

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*Contributions upon items of interest are always welcomed from subscribers, but in each case these should be accompanied with the name and address of the sender, not necessarily for publication, but as a guarantee of good faith.*

## Editorial Notes.

### April in the Maikop Fields.

PUBLIC opinion has greatly changed toward the Maikop field during the past few months, and we no longer hear a repetition of the once popular arguments as to the absurdity of investing British capital therein. On the contrary, the English investor is beginning to appreciate the fact that though mistakes may have been made in the boom days of 1910, which tended to give the Maikop region an unenviable name, the field has already justified the hopes held out for it, and is now steadily increasing its production. The output for April was approximately 350,000 poods from the 162 producing wells, and the largest part of this production—it is gratifying to note—was from properties owned by English interests. The Black Sea Oilfields had a total production during the month of over 85,000 poods, while the Maikop Premier Syndicate produced nearly 75,000 poods, the British Maikop Company coming next on the list of English companies with an output of 47,000 poods. To-day, the field is witnessing considerable development, and of the result of this we have no doubt. The one pity is that for so long a time the majority of English companies preferred only to scratch the surface of Maikop, without giving the field the slightest chance to prove its abilities to rank as one of Russia's chief oil-producing centres.

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### Grosny Producers Abandon the Pipeline Scheme.

THE question of the construction of a pipeline from the Grosny fields to some port on the Black Sea has been the subject of much discussion for the past few years, since it is evident that in view of the increasing output of Grosny petroleum, increased facilities for transport are much to be desired. The original project was, as our readers may recollect, for permission to lay the line from the Grosny fields to Touapsé on the Black Sea—the port, by the by, which came into such prominence when Maikop commenced to be developed. It was shown, however, that inasmuch as the length of the line would be about 650 versts, the cost would be very considerable—in fact a sum of 20,000,000 roubles was named as the approximate figure. In view of this, the Grosny producers decided that the better plan would be for the line to have its terminal sea-board point at Poti, likewise on the Black Sea, but much to the south-east, and therefore nearer the Grosny fields by 250 versts. But engineering difficulties were in the way, for inasmuch as the line would have to pass over the Caucasian range, an enormous sum would be required before the pipeline became a commercially accomplished fact. After further consideration of the subject, the Grosny producers have now decided to abandon the plan altogether.

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### Remarkable Increase in American Production.

NOTWITHSTANDING the weakening market, owing to the enormous flood of crude oil which cannot find an adequate outlet, the output of the American fields continues to increase. Word has gone round that in every possible case production should be minimised as much as possible, and as a matter of fact hundreds of large wells are to-day shut down: still the position is that the supply is considerably greater than the demand During the past seven years, the output of crude oil in the American fields has more than doubled, and to-day the crude oil output is about 785,000 barrels—a truly stupendous figure. All possible storages are filled, and the activity which is being displayed in the erection of new storage facilities counts as little, when the enormous over-production is considered. Should this continue, it is certain that the crude oil market will practically "fall to pieces"—so great is the quantity of oil on offer. The crude oil production of America this year cannot fall far short of 40,000,000 tons,

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### Reduced Dividend for the Spies Company's Shareholders.

THOUGH the Spies Petroleum Company, Ltd., has passed through a fairly satisfactory year, the decline in the yearly dividend recommended will come as a regretable surprise to the general body of shareholders, even though they receive on the past year's operations a dividend of 17½ per cent. As the directors point out in their report published on another page of this issue, the profits of the past year have been seriously affected by the workers' strike of August and September last; yet though this caused a great loss of revenue to the company, we cannot but feel that the discontent among the employees ranks as of quite secondary importance compared with the trouble which the company has experienced in regard to the flooding of several of its wells with water—a disaster which at the moment is by no means overcome. On its western plots the influx of water has been so serious that work has been suspended upon six of the plots, and the wells thereon are now plugged. A similar misfortune has overtaken the company's No. 1 well on the South Baskakoff plot, which for a time gave every sign of being a very successful producer. In this case also, the well has been plugged. Considering all circumstances therefore, the results of the past year's operations may be considered very gratifying to the shareholders. As for the future, the company is carrying out an active drilling programme, and at no distant date we anticipate an increased production of crude oil which will more than set off the present temporary diminution.

◆

## THE ROYAL DUTCH COMPANY'S BALANCE SHEET FOR 1913.

THE attention of our readers is called to a four-page supplement in the current issue of the REVIEW giving the report and balance sheet of the Royal Dutch Company. Additional copies may be obtained from our publishing offices.

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## CONGRATULATIONS TO MR. SYDNEY H. NORTH.

THE REVIEW offers its hearty congratulations to Mr. Sydney H. North—a gentleman who is well known as a writer upon petroleum and oil-engineering matters. Some time ago the *Financial News*, through the medium of the Public Prosecutor, brought a charge against Mr. North which amounted to an accusation that he had been guilty of accepting bribes to unduly favour the interests of a certain oil company. This week the Grand Jury had the matter before them, and after consideration of the evidence of the prosecution, threw out the bill. We extend our congratulations to Mr. North, who obviously now has not the slightest imputation cast against his character.

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## PRODUCTION OF ENGLISH COMPANIES IN RUSSIA.

RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended June 20th was 8,000 poods, from outlying plots not affected by the strike.

SPIES PETROLEUM COMPANY, LTD. — The production for week ended June 21st was 186,305 poods, or about 3,005 tons. The total production for the year from January 14th to June 21st was 6,222,285 poods, or about 100,359 tons. The total production for the corresponding period last year was 6,639,560 poods, or about 107,090 tons. Price of crude oil at Baku is now 43½ copecs per pood.

MAIKOP VICTORY OIL COMPANY, LTD. — The production of crude oil for week ended June 20th was 21,889 poods, or 353 tons.

EUROPEAN OILFIELDS CORPORATION, LTD. — The production for the week ended June 14th was 31,400 poods.

BAKU RUSSIAN PETROLEUM COMPANY, LTD.—The production for the week ended June 20th was 1,000 poods.

BLACK SEA OIL FIELDS, LTD.—The production of this company for the week ended June 20th was 19,203 poods (310 tons).

MAIKOP NEW PRODUCERS, LTD.—Production for week ended June 20th was 7,470 poods (120 tons).

BRITISH MAIKOP OIL COMPANY, LTD.—Production for week ended June 21st was 12,688 poods, or 204 tons.

BIBI-EIBAT OIL COMPANY, LTD.—Production for week ended June 14th, 78,233 poods, or 1,262 tons.

NEW SCHIBAIEFF PETROLEUM COMPANY, LTD.—Gross production for week ended June 20th, 54,155 poods, or 873 tons.

NORTH CAUCASIAN OIL FIELDS, LTD.—The total production for week ended June 23rd was 335,205 poods, or 5,406 tons. Corresponding period last year, 1,975 tons.

MAIKOP MIDLAND.—Production at Krimskaya for week ended June 20th was 4,070 poods, or 66 tons.

MAIKOP PREMIER OIL SYNDICATE, LTD.—The production for the week ended June 20th was 13,577 poods (219 tons).

LEVANOVSKOE PETROLEUM COMPANY, LTD.—Production of crude oil for week ended June 20th was 1,500 poods, or 24 tons.

URAL CASPIAN OIL CORPORATION, LTD.—Production for the week ended June 23rd, 133,000 poods, or 2,145 tons.

DR. T. O. BOSWORTH,
D.Sc. (London), M.A. (Cambridge), F.G.S.
*Harkness Scholar of Cambridge University.*
*Scholar of St. John's College, Cambridge.*
*Hutchinson Research Student.*

**Consulting Geologist.**
*(Formerly of His Majesty's Geological Survey.)*

OFFICE: 12, ST. GILES STREET.
NORTHAMPTON.

# The British Government and Oil Fuel.

### Pointed Reply by Sir Marcus Samuel, Bart., to Mr. Winston Churchill.

Prior to the commencement of last Monday's meeting of the Shell Transport and Trading Company, Ltd., at Winchester House, E.C., Sir Marcus Samuel, Bart., the company's chairman, took advantage of the opportunity offered to make a very pointed reply to the statements made by the First Lord of the Admiralty the previous Wednesday in the House of Commons upon the question of the Government's subsidy to the Anglo-Persian Oil Company, Ltd.

Sir Marcus said : A duty devolves upon your directors to rebut the statements of Mr. Winston Churchill made in the House of Commons respecting the Shell Company and its directors.

The first and most serious is that we have exploited the necessities of the Admiralty, that we are a trust next to the Standard Oil Company, a trust of such magnitude, that Mr. Winston Churchill has assigned to us a very important position in the oil trade. He has stated that there was a combination among various companies, so close and binding that there was no free market, and he has implied that the oil trade was controlled by the Standard Oil Company and the Shell Company.

If this be so, what is the reason that for the years 1907 to 1911 not a single ton of liquid fuel was purchased by the Admiralty from the Shell Company ?

In 1912 this company supplied no more than one-seventh of the oil fuel imported by the Admiralty in that year, and that quantity we supplied at a price which left the company a heavy loss.

It was largely in consequence of the very low prices ruling then that production was discouraged, and an inevitable reaction occurred twelve months later.

In 1913 of the total quantity of oil imported by the Admiralty our company supplied less than one-eighth. The remaining seven-eighths were derived from nine separate vendors, not one having the most remote connection, nor alliance, nor agreement with the Shell Company, nor among themselves.

I am sure that when the First Lord realises these facts, he will at once agree that he was completely misinformed when he stated in the House of Commons that there was a " ring " against the Admiralty, and that we were concerned in it, and that there was no "free market."

The argument of Mr. Winston Churchill that because there was not an " open market " it was necessary for the Government to develop oilfields themselves, goes by the board when it is remembered that in addition to the nine companies from whom supplies were drawn in that year, the Admiralty have notoriously obtained for 1914 and following years large supplies from Mexico, from the Scottish Shale Oil Producers, and from the Shell Company, whilst they know too that supplies are increasing in Trinidad, Sarawak, and Egypt, and that the opening of the Panama Canal will place vast quantities of oil at their disposal.

The great rise in the price, of which Mr. Winston Churchill complains, was amongst other natural causes due to the prospective demands of the Admiralty being concealed instead of being announced as early as possible. The imports of oil by the Admiralty in 1913 were no less than 150 per cent. larger than in 1912. With such a large and sudden increase in demand, the wonder is that the Admiralty had not to pay still higher prices, and that they did not, proves the elasticity of the oil market.

The Admiralty, if they wished to secure supplies, made the grave mistake of supporting one company only, and of keeping at arm's length this company, whom the First Lord has honoured by describing as a power in the oil world.

The specification prepared for liquid fuel for the Admiralty was of a character which excluded many sources of oil from supplying it.

With the growth of the requirements of the Admiralty for liquid fuel, it became necessary to obtain larger supplies, and then, and then only, was this company approached. We cannot betray Admiralty secrets, and unless Mr. Winston Churchill releases us, we may not disclose the actual figures at which we have sold to the Admiralty even for refuting the accusation, which we deeply regret, that we are only courteous " at a price."

But since the accusation has been made, we invite the Admiralty to disclose the f.o.b. price at which we sold to them, and at the same time to state the price paid to others for supplies bought at the same moment.

My colleague, Mr. Deterding, resents as deeply as I do the insinuations made against this company that we have been courteous to the Admiralty only " at a price." Mr. Winston Churchill himself, in his speech in the House, acknowledged how much he was indebted to Mr. Deterding, and consequently to the company, for what had been done for the Admiralty. It is to be regretted that in the report of the debate Mr. Deterding's name was accidentally omitted.

We next come to a sneer by Mr. Winston Churchill which is unworthy of him. He stated that if the Government did not conclude the purchase of the Persian oilfields, the Shell Company would have bought them, and under some high-sounding name would have registered another company. His sneer applied, no doubt, to the fact that the company in which the Shell Company and the Royal Dutch Company are the sole shareholders, is called the " Anglo-Saxon Petroleum Company."

There is no other foreign element in the Anglo-Saxon Petroleum Company, whilst it is agreed that in those of our companies which operate in British territories, the majority of the directors shall be British subjects.

The Dutch sources of supply now produce 1,500,000 tons of petroleum annually.

We have never done a greater service in securing a supply of liquid fuel for the Navy than when we realised the potentialities of the Dutch East Indies.

The reproach that we might suffer from a foreign alliance would possibly have held good if it were with a country having conflicting interests with Great Britain, and having a fleet requiring large supplies of liquid fuel. Neither of these conditions apply to Holland, and it has not been the least of the difficulties of your directors that the censures directed against this company have been based upon the fact that they were in alliance with the Royal Dutch Company.

We have not only never denied, but we are proud of the association. It has promoted good feeling between the two nations, and this will progress unless it is disturbed by unwise, ungenerous, and misleading representations.

Most fortunately, Mr. Deterding and his Dutch colleagues are broad-minded men, and they have not resented the attitude which has been taken. But, on the contrary, they have given, and I am quite sure will continue to give, every help that they possibly can to the British Admiralty if they will frankly state what it is they require and give us time and opportunity for providing it.

I am only too glad to chronicle that since the Admiralty realised their needs, since equal opportunity was given to this company with their competitors, a totally different spirit has prevailed, and it was therefore astonishing to us to hear that, under the pretext that there was a "ring" against the Admiralty and that we were parties to the "ring," it was thought necessary to adopt a step new to Government practice, and to involve public funds in a commercial adventure.

In the tale that I shall presently have to unfold to you in connection with your own business, you will see our total production for 1913 amounted to 4,000,000 tons. The small quantity which the Admiralty took from us is a bagatelle compared with this, and your interests are therefore financially independent of prejudices and attacks even by a Government department.

But we would express the hope that with the elucidation of the facts which we have placed before you, the prejudice which has existed against this company may be dispelled. Under no circumstances whatever will your directors and managers, British or Dutch, resent, to the injury of the British Empire, the grievances which we have had against individuals.

In spite of what has occurred, such service, advice, or assistance as we can possibly render to the Admiralty, will be freely, willingly, disinterestedly and always at their disposal if they choose to avail themselves of it.

## IMPORTS OF PETROLEUM PRODUCTS INTO HOLLAND.

THE imports of petroleum products into Holland during the first quarter, 1914, amounted to 101,611 tons. The imports from the various countries were as follows:—

| | Tons. |
|---|---|
| Russia ... ... ... ... ... | 570 |
| United States ... ... ... ... | 89,549 |
| Belgium .. ... ... ... .. | 10,696 |
| Other countries... ... ... ... | 796 |
| Total ... ... ... ... | 101,611 |

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Registered on May 26th by the Solicitors' Law Stationery Society, Ltd., 28 & 29, Chancery Lane, W.C. Capital, £12,000 in £1 shares. Objects: To carry on the business of general financial agents, etc.; also to enter into an agreement with Charters and Others, Ltd. Signatories: H. Hill, Swan House, Copthall Avenue, E.C.; and Muriel Vickers Tidd, 62, Perth Road, Finsbury Park, N. First directors: A. B. Simpson, "Anglefield," York Road, Sutton, and H. Hill, Swan House, Copthall Avenue, E.C. Qualification, £5. Remuneration, £25 per annum each (chairman £50). Registered office: Swan House, Copthall Avenue, E.C. Private company.

### NOVO ALDI (GROSNY) OIL COMPANY, LTD.

Registered on June 4th by Deacon & Co., 9, Great St. Helen's, E.C. Capital, £35,000 in £1 shares. Objects: To acquire all kinds of oil-bearing lands, or any interests therein, or any rights of, or connected with the getting or winning of all kinds of mineral oil, and to sink wells, make borings, and otherwise search for the same, and the products thereof, and to carry on the business of dealers in and refiners of mineral oils, and products thereof, etc.; also to enter into an agreement with The K. N. Syndicate, Ltd. Minimum cash subscription, seven shares. Signatories: H. Allen, 31, Budge Row, E.C.; R. R. Tweed, Pinners' Hall, Austin Friars, E.C.: W. F. Morse, "Belmont," Sydney Road, Walton-on-Thames; H. R. Cooke, 90, Bensham Manor Road, Thornton Heath, Surrey; J. H. Beare, 21, Kent House Road, Beckenham; and A. G. Parker, and A. H. Wright, both of 48, Cannon Street, E.C. First directors to be appointed by the signatories. Qualification, 500 shares. Remuneration, £200 per annum each, and chairman, £300, and in addition a sum equal to 5 per cent. of the sums which shall be distributed by way of dividend or bonus in each year, such sum to be divided among the directors. Registered office, 48, Cannon Street, E.C.

### BITUMENS, LTD.

Registered on June 5th by Blanckensee & Co., 27, King Street, Cheapside, E.C. Capital, £4,000 in 1s. shares. Objects: To acquire the world rights of a process invented by Carter White, F.C.S., A.I.Mech.E., for the purposes of extracting oil and other products from bituminous rock, oil surface sands, and such like; and to carry on the business of extractors of oil and other products from bituminous rock, oil surface sands, shale, and such like; distillers, refiners, storers, suppliers, and distributors of petrol and petroleum and the products of the same, and other oils and their products, and for this purpose to acquire interests in any patents for the distillation, production, refining, manufacturing, treatment, or application of or in connection with oil, petrol, and petroleum and other oils and their products, etc.; also to enter into a contract, dated June 5th, 1914, which has been entered into and made with C. White, whereby he will receive 40,000 fully-paid shares as purchase money for the world rights of his invention mentioned above, and J. S. Blanckensee, for services rendered, will receive 10,000 fully-paid shares. Minimum cash subscription, seven shares. Signatories: F. G. Harrison, 67, Prestons Road, Poplar, E.; E. A. Frankland, 31, Barnard Hill, Muswell Hill, N.; W. T. Boot, 56, Cassland Road, Victoria Park, N.E.; H. E. Buckle, 20, Appold Street, E.C.; E. T. Lascelles, 138, Engleheart Road, Catford, S.E.; W. G. Gibson, 421, Liverpool Road, Islington, N.; and A. Stringer, 31, Cedar Road, Teddington. First directors (who are to number not less than two nor more than seven) are: W. Bruce, Capel House, New Broad Street, E.C.; J. Nelson, 86, St. Vincent Street, Glasgow; and C. White, A.I.Mech.E., F.C.S., 10, Bush Lane, Cannon Street, E.C. Qualification, nominal amount of 1s. Secretary and registered office: D. D. Robertson, F.C.A., 400/402, Moorgate Station Chambers, E.C.

### THE PRAHOVA OIL LANDS OF ROUMANIA, LTD.

Registered on June 8th by Shaw & Bristowe, 59 & 60, Chancery Lane, W.C. Capital, £100,000 in £1 shares. Objects: To acquire petroleum or oil-bearing lands in Roumania, or elsewhere, and rights of or connected with the getting or winning of any petroleum or other oil, bitumen, ozokerite, or other similar substances, and to sink shafts or wells, make borings, and otherwise to search for the same, and to carry on the business indicated by the title. Minimum cash subscription, seven shares. Signatories: F. H. Bollans, 45, Maynard Road, Walthamstow, N.E.; F. G. Cheesman, 162, Engleheart Road, Catford, S.E.; G. L. Owen, 23, Speenham Road, Brixton, S.W.; H. W. Clark, 45a, Forest Road, Dalston, N.E.; J. Young, 41, Oakhurst Grove, East Dulwich, S.E.: H. J. Forrest, 2, Bancroft Road, Mile End, E.; and F. Croome, 68, Blackhorse Lane, Walthamstow, N.E. First directors: C. J. Follett, Henyock, Devon; M. Parker, 11/13, Southampton Row, W.C.; and A. Pereno, The Limes, Grosvenor Road, Gunnersbury, W. Qualification, £100. Remuneration, £250 each per annum (chairman, £350). Secretary and registered office: C. M. Parker, 11/13, Southampton Row, Holborn, W.C.

### THE VERA CRUZ MEXICAN OIL COMPANY, LTD.

Registered on June 10th by Julius, Edwards & Thomas, 8, Old Jewry, E.C. Capital, £300,000 in £1 shares. Objects: To acquire the business and undertaking of the Vera Cruz Mexican Oil Syndicate, Ltd., to acquire oil-bearing and other lands, to prospect for, explore, open, bore, work, develop, test and prove petroleum and oil-bearing lands, and to raise, render merchantable, and deal in petroleum, naphtha and oil of every description; also to enter into an agreement with the Vera Cruz Mexican Oil Syndicate, Ltd., and its liquidator. Minimum cash subscription, seven shares. Signatories: B. Shaw, A. W. Hazell, A. C. Moss, W. Ganly, A. Smart, and T. G. Mugford, all of 8, Old Jewry, E.C., and P. Hodd, 81, Parchmore Road, Thornton Heath. First directors (to number not less than three nor more than six) are to be appointed by the signatories. Remuneration, £250 per annum each (chairman, £350). Whenever a distribution of cash is made among the members by way of dividend, the directors shall be paid, as additional remuneration for their services, a sum equal to 5 per cent. of the cash so distributed, provided always that such additional remuneration shall not in any one year exceed £3,000.

### LUCAS'S LOW PRESSURE OIL CRACKING PROCESS, LTD.

Registered on June 10th by H. P. Becher, 26, Bedford Row, W.C. Capital, £4,000 (3,800 "A" shares of £1 each and 4,000 "B" shares of 1s. each). Objects : To carry on the business indicated by the title ; also to enter into an agreement with O. D. Lucas and O. H. Valpy. Signatories : H. G. Clark, 53, Oaklands Road, Hanwell, W., and E. W. Church, 35, Durlston Road, Upper Clapton, N.E. First directors (to number not less than two nor more than five) are to be appointed by the signatories. Qualification (other than first directors), fifty shares. Registered office : 11, Haymarket, S.W. Private company.

### STANMORE INVESTMENT COMPANY, LTD.

Registered on June 12th by Ashurst, Morris, Crisp & Co., 17, Throgmorton Avenue, E.C. Capital, £100,000 in £1 shares. Objects : To acquire any petroleum or oil-bearing lands, or any interests in such lands or any rights of or connected with the getting or winning of any natural gas, petroleum or other oils, bitumen, or other similar substances, to sink wells, make borings, and otherwise search for, obtain, develop, exploit, render suitable for trade, carry away and sell petroleum and other mineral oils, natural gas, asphalte and other similar substances and the products thereof, and to carry on the business of dealers in and refiners of petroleum and other mineral oils and the products thereof, etc. Signatories : E. S. Harper, 104, All Souls Avenue, Harlesden, N.W., and J. A. Fuller, 25, Brampton Road, Harringay, N. First directors (to number not less than three nor more than seven) are to be nominated by the signatories. No person shall be qualified to be a director unless he is a British subject and not subject to the influence of a foreign state, body, person or corporation under foreign control, or an oil corporation. Remuneration, £100 per annum each. Private company.

### GALICIAN VICTORIA PETROLEUM COMPANY, LTD.

Registered on June 15th by W. B. Styer, 11 & 12, Fenchurch Street, E.C. Capital, £120,000 in £1 shares (20,000 7 per cent. cumulative preference). Objects : To acquire any petroleum or oil-bearing lands in Austria or elsewhere, or any interests in such lands, or any rights of or connected with the getting or winning of the same, to sink wells, to make borings, and otherwise to search for and get petroleum and other mineral oils and the products thereof in Austria or elsewhere, and to carry on the business of dealers in and refiners of petroleum and other mineral oils and products thereof, and to treat and turn to account in any other manner the same, etc. ; also to enter into an agreement with the Alpha Petroleum Company, Ltd., and W. C. Sneath, the liquidator thereof. Minimum cash subscription, seven shares. Signatories : C. E. Booth, 132, Norfolk Road, Seven Kings, Essex ; J. Windett, 133, Carlyle Road, Manor Park, Essex ; L. W. Hyde, 9, The Broadway, Winchmore Hill, Middlesex ; A. Boom, 71, Goldhurst Terrace, Hampstead, N.W. ; E. F. Cossor, North View, Nether Street, North Finchley, N. ; A. E. Spearman, 18, North View Villas, Ewell, Surrey ; and T. J. Alexander, 40, Overhill Road, East Dulwich, S.E. First directors : C. E. Booth, J. Windett, L. W. Hyde, A. Boom, E. F. Cossor, A. E. Spearman, and T. J. Alexander. Qualification, 500 preference shares. Remuneration, £200 each per annum (chairman, £300), provided that the remuneration of a director shall not exceed the sum of £50 in any year, with £25 additional for the chairman, unless the ordinary shareholders shall receive in such year a dividend of 5 per cent. on the amount paid up on their shares.

### MORENI AND BORDENI OIL SYNDICATE, LTD.

Registered on June 15th by Hargreaves & Joblin, 7, Stone Buildings, Lincoln's Inn, W.C. Capital £10,500 (10,000 preferred shares of £1, and 10,000 deferred shares of 1s. each). Objects : To acquire all kinds of oil-bearing lands or any interest therein, or any rights of or connected with the getting or winning of all kinds of mineral oil, and to sink wells, to make borings, and otherwise search for all kinds of mineral oils and products thereof in any part of the world, and to carry on the business indicated by the title. Signatories : G. W. Cox, 22, Hornsey Park Road, Hornsey, N., and H. V. Bishop, 156, Edenbridge Road, Bush Hill Park, Enfield, Middlesex. First directors to be appointed by the signatories. Qualification, £1 ; remuneration, £100 each per annum. (chairman £150). Registered office : 65, Bishopsgate, E.C. Private company.

### UNION PETROLEUM PRODUCTS COMPANY, LTD.

Registered on June 16th by Birkbeck Yeo & Co., 20, Copthall Avenue, E.C. Capital, £100 in £1 shares. Objects : To manufacture, treat, deal in, or otherwise turn to account any mineral or mineral products, and to acquire any petroleum, asphalte, naphthaline, or oil-bearing lands in North or South America or elsewhere, or any interests in such lands, or any rights connected with the getting or winning of any natural gas, petroleum or other oils, bitumen, naphthaline, and other similar substances and minerals, and to sink wells, make borings, and otherwise search for, obtain, exploit, develop, treat, sell, and turn to account the same and the products thereof, etc. ; to acquire, construct, and maintain tanks, wells, reservoirs, stations, and pump services, accumulation services and distribution services, pipes, pipelines, and other apparatus in connection with oil, gas, bitumen, etc. ; and to carry on the business of dealers in petroleum and other mineral oils, natural gas, asphalte, and naphthaline and other similar substances and the products thereof, etc. Registered office : 21, Bury Street, E.C. Private company.

### THE CANADIAN OIL CORPORATION, LTD.

Registered on June 18th by Nicholson, Graham & Jones, 24, Coleman Street, E.C. Capital, £10,000 in £1 shares. Objects : To acquire any petroleum or oil-bearing lands or any interest in such lands or any rights of or connected with the getting or winning of any natural gas, petroleum or other oil, bitumen, asphalt, or ozokerite or other similar substances ; to sink wells, make borings and otherwise to search for, obtain, exploit, develop, render suitable for trade, carry away, and sell petroleum and other mineral oils, natural gas, asphalt, ozokerite or other similar substances and the products thereof and other fuels, and to carry on the business of dealers in and refiners of petroleum and other mineral oils, natural gas, and the products thereof, etc. Minimum cash subscription, seven shares. First directors (who are to number not less than two nor more than five) are to be appointed by the signatories. Qualification (other than first directors), £100. Remuneration, £100 each per annum (chairman £150). Registered office, 4, London Wall Buildings, E.C.

# Anglo-Roumanian Petroleum Company, Ltd.

## SUCCESSFUL RESULTS IN THE FACE OF CONSIDERABLE DIFFICULTIES.

The sixth ordinary general meeting of the Anglo-Roumanian Petroleum Company, Ltd., was held on Tuesday, at 56, Moorgate Street, E.C., Mr. J. C. Williamson (chairman of the company) presiding.

The Secretary (Mr. P. E. Barnard) having read the notice calling the meeting and the auditors' report,

The Chairman said: Gentlemen, I presume that, in accordance with the usual practice, you will take the report and accounts as read. If you will turn to the balance-sheet you will observe on the debit side our debenture issue is £25,000, on which only £15,790 has been paid up, and I am pleased to tell you that owing to the satisfactory financial position of the company we found it unnecessary to make any further calls. We also made arrangements with some of the debenture-holders to defer payment of calls until requested to do so. This will effect a considerable saving in interest, as the moneys received would have been placed with our bankers on deposit, earning, probably, about 2 per cent., while we should have had to pay 6 per cent. to the debenture-holders. Of the amount of £1,814. 7s. 4d., due to sundry creditors in London, a considerable portion of this is for income-tax, and the sum of £2,960. 19s. 2d., creditors in Roumania, is made up of items incurred in the ordinary course of trading, all of which have long since been paid. The additions to wells, buildings, plant, and machinery account amounted to £6,550. 1s. 7d., which, after deducting £5,636. 18s. 11d. for depreciation, leaves the total amount of £81,569. 2s. 2d. standing under this head. The stock of stores in Roumania, valued at £5,992. 14s. 5d., is a much larger figure than last year; but we required additional casing and other materials to enable us to carry on our drilling programme, and I expect by this time a large proportion has been used. Sundry amounts paid in advance, £381. 19s. 10d., consist of disbursements for insurance, surface rights, etc., on account of the present year. With regard to the sum of £4,875, preliminary expenses, you will notice that the whole of this amount has been written off, and I am sure you will be glad to get rid of that item from our balance-sheet. The cash in hand, at bankers', and on deposit amounted to the eminently satisfactory figure of £13,771. 0s. 7d. Turning to the profit and loss account, you will note the expenses amount to £3,375. 19s. 2d., an increase of about £790, the greater portion of which is for commission on profits earned by the company, payable to the managing director and the managers in Roumania, and we sincerely hope that next year our charges under this head will show a still larger increase. General expenses are slightly higher, owing to a loss on exchange of £189. Debenture interest is only £915. 8s. 1d., instead of £1,500, which it would have been had the debentures been paid up in full. I previously explained how we were enabled to effect a large saving in regard to this. Depreciation on wells, buildings, plant, and machinery, £5,636. 18s. 11d., is the amount written off, in accordance with our usual custom.

The gross profit on trading, together with the transfer fees and deposit interest, amounted to £26,046. 16s. 8d., which is, I think, the largest in the history of the company. After deducting London expenses, depreciation, etc., the net profit for the year is £11,243. 10s. 6d. This amount, together with the balance of £8,729. 14s. 1d., brought to the credit of profit and loss account from last year, makes a total of £19,973. 4s. 7d. to be dealt with. The directors propose to transfer to reserve account £8,500, making, with the £1,500 reserved for depreciation on leases, a total of £10,000, to pay a dividend of 5 per cent., equal to £7,500, which dividend I shall presently ask you to sanction, and to carry forward the balance, £3,973. 4s. 7d., to next year's accounts. I think we may congratulate ourselves that our company is now in a much sounder and stronger financial position. Your board have had a very anxious year and considerable difficulties to overcome; but the fact that we are financially strong enables us to push on our work with energy and confidence. The greater part of the year under review was extremely trying; for not only had we our own troubles of accidents to the wells, etc., but, owing to the mobilisation of the Roumanian troops, consequent on the Balkan War, nearly all our men were called to the colours, and at times we had only about 5 per cent. of our labourers working. The whole of our transport was stopped, as our bullocks and horses, and also our motor car, were commandeered by the Government; so that we could move neither casing nor tools, and had to be thankful to get a few old men to look after the producing wells. The production of oil for the year was 12,973 tons, being only slightly in excess of the production for 1912, viz., 12,306. We have, however, received compensation for this in the good prices realised for the oil, and I may here say that during the current year we expect to receive equally good prices.

As mentioned in the directors' report, the policy of the board in deciding to drill to the deeper oil source in Bordeni is meeting with success, and will result, we hope, in a further increase in our production. In October well No. 28 came into production, and up to May last gave nearly 7,500 tons, and during this year Nos. 17 and 24 have also produced from this lower oil source. I am sorry to say we have some trouble in regard to well No. 24, but are hoping soon to hear that this well is again in operation. The well at Gropi is down to about 470 metres. Unfortunately, we had an accident with the baler, but we are expecting to hear every day that it has been recovered. The well at Runcu is over 200 metres deep, and drilling is proceeding satisfactorily. As Mr. Tweedy (our managing director) will second the resolution for the adoption of the report and accounts, I will leave him to give you fuller details about the work that is in progress. In conclusion, I think you will agree that the directors' unfailing confidence in the property has been justified, and, although we have had our share of troubles and difficulties, we have proved not only that we have on our land oil in considerable quantities but that it yields good profits. Unfortunately, oil getting is not the easy matter that some suppose, and only those actually in the business know the continuous anxiety of all concerned in the management, from the chairman and directors to the field superintendent and drillers. The boring of every foot of a well requires the utmost care and attention, and at all times the greatest technical skill is needed, and also, if I may say so, a sort of instinct to guard against the thousand and one contingencies that arise without any warning. As an instance of the unremitting attention necessary, when our No. 28 well came in and spouted our field managers were there two nights and days without sleep, and it was only by their unceasing efforts that the well was kept under control and the oil saved. You will the better realise this when I tell you that an iron control pipe ⅝ in. thick was worn through in a few hours, owing to the enormous force of the oil and sand. I might mention here that the properties in Roumania are insured against fire with British companies. I trust that when I have the pleasure of meeting you next year I shall be able to give you further proof of the progress the company is making and to again ask you to sanction the payment of a dividend, which we hope may be larger than the one we propose to-day. I now propose: "That the report and accounts for the year ended December 31st, 1913, be, and are hereby, received and adopted," and will ask Mr. Tweedy to second the resolution.

Mr. George Tweedy (the managing director) said: I have great pleasure in seconding the resolution for the adoption of the report and accounts, especially as they show that our company is now in a strong position and that we are within reach of the time when we may reasonably anticipate paying regularly still better dividends. The difficulties which retarded our operations during the previous two years, and were, as you know, beyond our control, have now, I believe, been completely overcome. I think we may therefore look forward with confidence to the future to amply compensate us all for the disappointments which we have had to put up with in the past. I should like to take this opportunity of saying a few words about our development work, so that you may be able to form opinions for yourselves of what our property is likely to yield. At the annual meeting in May, 1911, I explained that when we originally commenced operations on the Bordeni field our intention was to carry the wells to the first prolific source, known as the 400-metre horizon. Unfortunately, the water troubles began almost immediately after the meeting, and, as you are aware, this misfortune completely upset all our plans. It was only in October last that the first of our wells in this district—No. 28—was brought into production from the 400-metre source. This well is a steady producer and is now giving about 100 tons per week. No. 17 came into production in April last and is also yielding over 100 tons per week. No. 24 commenced to produce on the 23rd of last month, and for the week ended May 30th it gave 432 tons. A hard cork then formed, and after having partially cleaned it, the well spouted very strongly, throwing out the instruments which were being used to remove the cork. Unfortunately, the pick dropped back into the hole and blocked the well. I have every reason to believe it will be cleared at an early date, and from appearances this well should be by far the best of the three. In addition to these, we have at Bordeni no less than 11 other wells all over 300 metres deep ; four of which should be in the oil source early in August and the remainder in four to six months. I do not think it is necessary for me to say anything further about Bordeni, as I am sure from the details I have given you will agree our prospects there are very satisfactory.

We have commenced drilling on our property in Gropi, which district, as you will no doubt know, has been very much to the fore of late on account of the big wells which have been brought in there. Our well is at present 470 metres deep, and we expect to strike a very prolific oil source within the next 130 metres. Runcu is another district in which oil has recently been discovered, and several good wells are in production there. We have a block of land in the district, and have commenced a well on it ; the present depth is 218 metres. Judging from the results obtained in neighbouring wells, we expect to reach an oil source at about 400 metres, which should give 100 to 150 tons per week per well. Apart from the land already referred to, the company has a considerable area in other districts where recent developments have proved the existence of oil in large quantities. At Recea, for example, a well close to the boundary of our property is giving about 250 tons per week. Taking all these facts into consideration, I think you will agree with me that our prospects are very encouraging, and that with our small capital we ought to make handsome dividends. You will be pleased to know that I estimate the trading profit for the first six months of 1914 as more than double that for the same period last year. In other words, we are already in the happy position of having earned a profit this year equal to the dividend for the whole of last year.

I do not think there is any more left for me to say, and therefore I will conclude by formally seconding the resolution so ably moved by the chairman.

Mr. S. H. Baker said he was extremely pleased to see the amount of £8,500 carried to reserve.

Mr. Hancke remarked that he would like to associate himself with what the previous speaker had said with regard to the financial position. It was very sound policy to start a reserve fund. He was sure all the shareholders were glad to see that the company had again reached the dividend-paying stage. He also wished to express his appreciation of the way in which the board had given the shareholders information as to anything that happened on the field, whether favourable or otherwise, and he hoped they would continue to do the same in the future.

The Chairman said that with regard to the reserve he was inclined to be conservative, and wanted to see that fund stand at a substantial figure.

The resolution was carried unanimously.

The Chairman then moved : "That a dividend of 5 per cent. (less income-tax) for the year ended December 31st, 1913, be declared, payable to the shareholders on the 24th inst."

Mr. H. D. Boyle seconded the resolution, which was unanimously adopted.

On the motion of the Chairman, seconded by Mr. George Tweedy, Mr. H. D. Boyle and Mr. J. H. Renton were re-elected directors.

Messrs. Fookes, Hickman & Co. were re-elected auditors.

Mr. G. H. Fookes, in thanking the meeting for the re-election of his firm, said they were particularly pleased to be associated with this company, because the directors were wise in building up a reserve and not paying excessive dividends. That was how the success of a company was built up.

The Chairman announced that the dividend warrants would be posted that night, and the proceedings terminated with a vote of thanks to the chairman, directors, and staff.

## THE ASSAM OIL COMPANY, LTD.

### A Year of Steady Progress.

The sixteenth ordinary general meeting of the shareholders of the Assam Oil Company, Ltd., was held at Winchester House, on Wednesday, Lord Ribblesdale (chairman of the company), presiding.

The Secretary (Mr. S. Maclean Jack) having read the notice convening the meeting, and the report of the auditors,

The Chairman, in moving the adoption of the report, which appeared in last week's issue of the Review, said that the year had been one of steady progress. The figures indicated a better position than they had been in before, and the increase in the production of the drillery which he mentioned at the last meeting had been fully maintained. The increased production and greater activity necessitated the enlargement of the refinery, as for many months they had had more crude oil available than they could adequately deal with. They had accordingly shipped out to India a great deal of extra plant. The electric power installation had been increased, and the various departments were now in an efficient and, as far as possible, labour-saving condition. As to the drillery, the development on the older fields at Digboi and Bappa Poong, was quite satisfactory, there being a steady increase in production without any special sets-back to record.

In regard to the new field at Hansa Poong, the line had been completed and the cutting had now been made safe. The first well had been put down at Hansa Poong, and all the indications were quite as favourable as they had expected. They had obtained several "shows" of oil at a very much higher level than they had hoped to find them, and they had oil at the bottom of the well, which was about 1,200 ft. deep. The production and condition of their two outlined fields were now in such a position that they would have to discuss the question of laying pipelines to bring the crude oil to the refinery. Their marketing throughout the year had been quite satisfactory, prices remaining good for all their productions. They had sold wax up to something like 25s. per cwt., and the present price was between 17s. and 18s. The prices they had received for kerosene recently had been good, and batching oils had sold well. The accounts showed that they had made a profit of £31,786, which was the best profit they had made, so far, in the history of the company. Then they had written £10,000 off to depreciation and £3,000 off the preference capital issue expenses. The preference dividends were paid on the due date, and the board were now recommending a distribution of 5 per cent., or 1s. per share, on the ordinary capital. At the last annual meeting someone mentioned the question of the reserve fund, but the board had come to the conclusion that it would be wiser before they started a reserve fund to get rid of the preliminary expenses. If the present profits continued they would no doubt be able to start a reserve fund. He moved the adoption of the report.

Mr. George Turner seconded the resolution, which was carried.

Sir Boverton Redwood, the company's technical adviser, said the company had never been in a better position than it was at the present time. The older territory continued to give excellent results, and the company had, at any rate, a promising prospect of a large addition to the proved area of oil lands.

A vote of thanks to the chairman, his colleagues and the staff concluded the meeting.

# MISCELLANEA.

## DECEASE OF Mr. WALTER L. CARR, OF NEW YORK.

We regret to announce the decease of Mr. Walter L. Carr, who together with his brother, Mr. Herbert J. Carr, has been the controlling factor in the great business of Messrs. Carr Bros., of New York and London. Mr. Walter Carr paid particularly close attention to all phases of the oilfield supply business, making himself well acquainted with the export and industrial conditions in Latin America, especially in Mexico.

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## A NEW PROLIFIC GALICIAN WELL.

The Review learns that the new Galician well—Dzuinia—has now entered into regular production from a depth of 1,573 metres, and is giving 140 tons of crude oil per day. The well is cased with five-inch casing, and was drilled with a Galician rig supplied by Messrs. Perkins Macintosh & Zdanowicz, the Galician company of the Perkins Macintosh Petroleum Tool and Boring Company, Ltd. Such a large crude oil production from a depth of nearly 5,000 ft. is almost without precedent —even in Galicia.

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## FUEL OIL STORAGES FOR THE UNITED STATES NAVY.

The Naval Appropriation Bill which is now before the United States Senate provides for the storage of oil fuel for naval requirements at several points round the American coast. The greatest cost for any one storage installation is $150,000 for the station to be situated at some point in the Gulf of Mexico (the exact position has yet to be determined by the Secretary of the Navy), and for the installation at Norfolk, Va. A sum of $100,000 is to be expended upon the installation at San Francisco, and $105,000 for the depot on Puget Sound, while $50.000 is required for the depot at San Diego. The installation on Rhode Island is estimated to cost $20,000.

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## THE OIL BOOM IN CALGARY.

The latest information from Calgary is to the effect that though still manifest, much of the oil excitement in Calgary has subsided. The famous Dingman well was uncapped a few days ago on the occasion of a visit to the property of Calgary aldermen and members of the Board of Trade. The Calgary council appointed several representatives to visit the well in order that they might acquaint themselves with the exact position, for in the Province of Manitoba the selling of Calgary oil stocks has been prohibited. When the well was visited, the valve registered 160 lbs. pressure and the flow was 1,000 gallons in half an hour, while on the following day the pressure increased to 270 lbs. and in eighteen minutes the flow was two thousand gallons. It is expected that should the wells now going down reach the producing sands, the recent excitement will again become general.

## A RECORD NATURAL GAS WELL IN CANADA.

What is conceded to be the largest natural gas well ever struck in Canada was recently brought in near Petrolia by the Great Gas Company on property several hundred feet from the famous Fairbanks gas well, which was struck several months ago. The gas in the new well was met with at a depth of 1,800 ft., and the supply increased as the well was drilled deeper, until the pressure blew the drill through the top of the derrick. The well is now flowing at an estimated rate of 30,000,000 cubic feet per day, and the roar of it can be heard several miles away. Provided the output continues, the supply is stated to be sufficient to supply all the cities, towns, and villages between Sarnia and Hamilton.

◆

## CALIFORNIA'S NEW LAKE VIEW GUSHER.

As briefly announced in our last issue, there seems to be no hope of capping the Lake View No. 2 gusher in the Maricopa field of California, on the property of the Lake View No. 2 Oil Company. The well now seems to be attempting to rival its predecessor, for on June 1st it threw up a column of oil some 250 ft. high for several hours. It is estimated that at that time the well was producing at the rate of over 100,000 barrels per day. The greater portion of the oil is being wasted, as the facilities do not permit of its being stored. The Standard Oil Company is, however, taking 18,000 barrels per day from the well. It is predicted that the well will soon sand up; in fact, it is hoped that this will be the case, as there is no market for such large quantities even if they were stored. It will be remembered that the Lake View No. 1 well was the direct cause of the slump in crude oil prices some three years ago. A bulkhead is now being built round the mouth of the No. 2 gusher, and it is hoped that when this becomes filled with crude oil the pressure from the well will be greatly minimised. The crude oil contains little or no water admixture.

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO ITALY.

The imports of petroleum products into Italy during the first quarter amounted to 68,192 tons, as against 64,609 tons imported during the corresponding period 1913. The imports of the various products were as follows :—

| From | Kerosene. Tons. | Benzine. Tons. | Lubricating oil. Tons. | Other products. Tons. |
|---|---|---|---|---|
| Austria ... ... | 389 | 508 | 1,722 | 2,785 |
| Russia ... ... | 198 | — | 2,494 | 5 |
| Roumania ... ... | 10,666 | 3,592 | — | 7,181 |
| United States ... | 22,494 | 3,037 | 4,468 | 2,085 |
| Other countries ... | 4 | 155 | 4,219 | 2,190 |
| Total ... ... | 33,751 | 7,292 | 12,903 | 14,246 |
| Total for first quarter, 1913 | 32,754 | 5,485 | 11,577 | 14,793 |

# The Future Development of the Grosny Fields.

By Engineer A. M. KONSHIN.

Being a report read by the author at a meeting of the United Baku and Grosny branches of the Russian Technical Society.

*Translated from the "Neftannoie Dielo."*

Twenty years of exploitation of the Grosny petroleum fields have established the following characteristic features of their structure :—

The Grosny petroleum deposits represent a straight anticlinal fold extending from S.S.E. to W.N.W. in a narrow band of land about twelve versts in length. The northern wing of this anticlinal fold is broken and its strata are disposed vertically, while the southern wing has remained intact and shows a pretty stiff incline to the south. The petroleum deposits here are of a stratiferous nature without any dislocation whatever, and generally the whole of the old Grosny area appears in all its extensions of a uniform stratigraphic character. In its centre the area is elevated almost horizontally, while in its eastern and western parts it falls at an angle of 10° both to the east and west.

The borders of the area on both the east and west are characterised by a stiff fall of the petroliferous horizons into the depths of the earth. The old area thus encloses the whole of the deposit and its extensions. Thus by cutting this fold in various places across its extension we shall obtain along the whole length of the twelve versts perfectly uniform lateral sections in the shape of a narrow (about 700 ft. wide) dome, the petroliferous character of which is bordered along the northern edge of the anticlinal by a wall of vertical strata, while its southern slope gradually declines towards the south under an average angle of 40° and here forms the exploitation area. The latter, where the old Grosny oilfields have been developed, is therefore twelve versts in length and as yet one verst in width, forming a surface of about 1,200 dessiatines. The width of the productive part of the deposit is, however, not limited to this one verst, but shows a permanent tendency of extending. Notwithstanding the fact that the difference in the depths of one and the same petroleum horizon on the northern and the southern borders of the exploitation area equals 2,000-3,000 ft., boring at Grosny may exceed depths of 3,500 ft., and the exploitation area in the future will gradually extend beyond the one verst to the south. How far such extension will go, and if it will ever complete the whole of the synclinal valley (five versts wide) which separates the Grosny ridge from the parallel Sunjen ridge, are questions of the future.

The Grosny petroleum deposit contains more than twenty petroliferous strata 3-40 ft. thick, of which, however, only three or four are sufficiently and uniformly saturated with oil. All the others are comparatively poor and not uniformly saturated. Some deep wells have already passed into the petroliferous horizon to depths of over 2,000 ft., but have not yet reached its bottom, which is underlined with strata of the clay system. The strata comprising the Grosny deposit are formed of compact clays, semi-hard and spongy sandstones and more seldom hard marles, all very favourable for deep boring, so that by use of the rope system they bore 35 ft. a day at depths of 700-2,000 ft., and even of 3,500 ft. and more. In fact there are already at Grosny over fifty wells of depths from 3,000 to 3,500 ft., ten wells from 3,500 to 4,000 ft., and one well of a depth of 4,300 ft. The great hardness of the strata also allows the strengthening of the walls of the wells with but a few casing columns. Thus, for instance, one column proves to be sufficient for strengthening about 1,500 ft. The hardness and stability of the petroliferous sandstones also allows of the application of the so-called piston rod baling, thus considerably increasing the yield, viz., to 15,000-20,000 poods a day, such baling being possible even in narrow wells of 4-6 ins. diameter, or in slanting and bent wells.

A comparison of the exploitations of the Grosny and the Baku areas show the following results :—

The sizes of the areas at present under exploitation at Baku and Grosny are practically equal, viz., 1,050 dessiatines at Grosny and 1,100 dessiatines at Baku. The yearly Baku production at present equals 425,000,000 poods obtained from 2,800 wells ; at Grosny it equals 75,000,000 poods from 280 wells. So far there have already been extracted at Baku during the forty years of its exploitation 12,000,000,000 poods, or per each dessiatine about 12,000,000 poods. Adding to the latter figure 4,000,000 still in reserve and not yet extracted, the total minimum oil wealth of Baku may be estimated at 60,000,000 poods per dessiatine. At Grosny during the twenty years of its exploitation there were obtained 800,000,000 poods. Another twenty years of exploitation will double this quantity, so that the oil reserve of the Grosny area may be estimated as equal to 1,600,000 poods per dessiatine. It follows that the saturation of the Grosny hard sandstones is ten times poorer than that of the Baku floating sands. However, in comparing the yearly or daily productivity of the wells in the Baku and Grosny oilfields, the latter have the advantage of showing a daily average per well of 900 poods, as against 500 poods only at Baku, or by 80 per cent. higher.

(*To be continued.*)

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO NORWAY.

The imports of petroleum products into Norway during January amounted to 13,659 tons. The imports of the various products were as follows :—

| | Tons. |
|---|---|
| Kerosene ... ... ... ... | 13,026 |
| Benzine ... ... ... ... ... | 42 |
| Lubricating oil ... ... ... ... | 591 |
| Total ... ... ... ... | 13,659 |

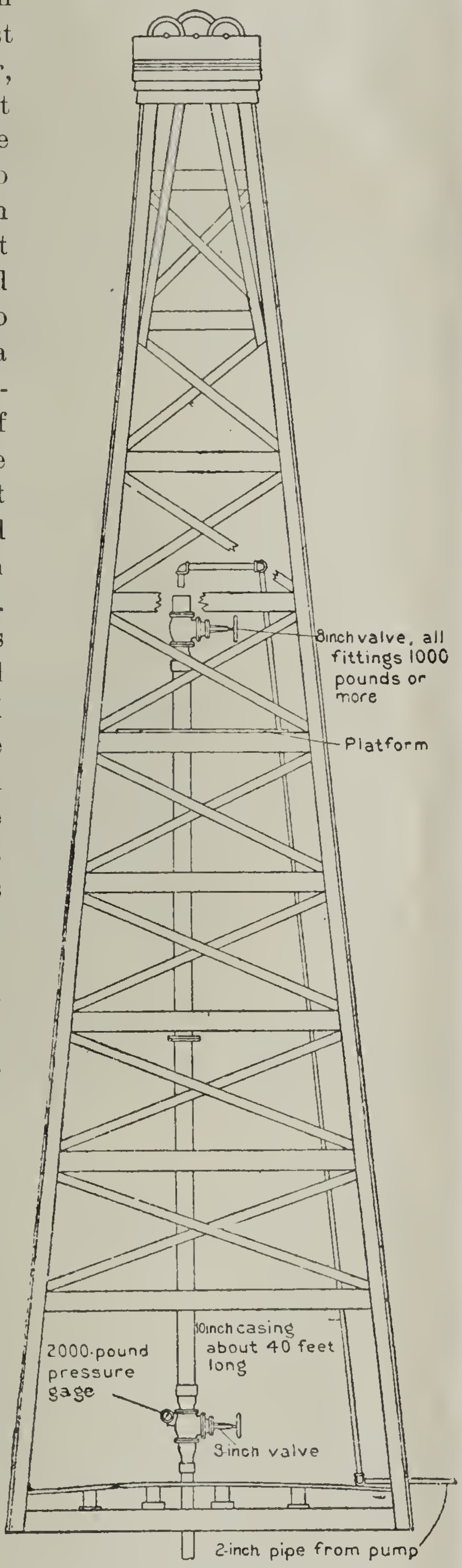
# MUD-LADEN FLUID APPLIED TO WELL DRILLING.

By Messrs. J. A. POLLARD and A. G. HEGGEM.

(*Continued from page* 666.)

THERE are several methods of introducing the clay and water into a well. Before gas is encountered in a well that has been drilled in the most advantageous manner, several hundred feet of the hole may be without casing. To prevent the walls from caving, as might happen were the fluid pumped directly into the top of the well, a string of tubing reaching to the bottom of the well should be placed to conduct the fluid. The fluid is then pumped in until the well is filled.

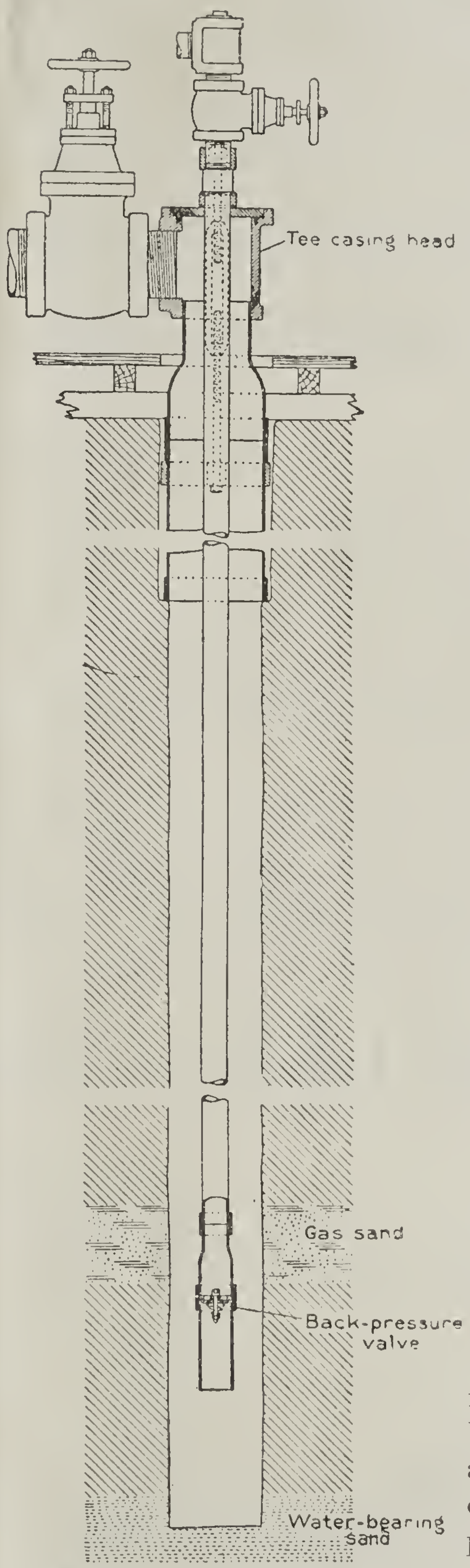
If, after gas has been struck, the well is blowing gas, and the conditions are such that the gas can be shut in, recourse may be had to a method which has been named the "lubricator system," as shown in the first illustration on this page, which consists preferably of two joints of 10-inch casing placed above a master valve on the head of the well, and having a second gate valve at the top. These valves and casings can be most readily attached to the well by assembling them on the ground and placing them on the well as a unit. It is dangerous to attempt to put a valve or a single fitting on a gas well by handling the valve or fitting in slings.


8inch valve, all fittings 1000 pounds or more
Platform
2000-pound pressure gage
10inch casing about 40 feet long
3-inch valve
2-inch pipe from pump

Device for introducing mud-laden fluid into a well under gas pressure.

As soon as the valves and the two joints of casing, which are termed the "lubricator," are in place, the bottom valve is closed. The mud-laden fluid is then pumped into the two joints of casing, and when they are entirely filled the upper valve is closed and the bottom valve is opened. Following the equalisation of pressure throughout the device, the mud-laden fluid drops to the bottom of the well. As soon as the fluid has passed the lower gate valve, as shown by the sound when the casing is struck, this valve is closed and the upper valve is opened. The volume of gas that escapes from the hole is equal to the volume of fluid that has been introduced, and therefore the pressure of the gas in the casing is not increased. After a few repetitions of this operation, a part of the fluid is forced out of the bore hole into the porous strata. Then the gas remaining in the hole will expand and its pressure will be lowered. The amount the pressure is reduced is an indication of the amount of fluid forced into the porous formations. By repeating the operation described there is finally established in the well a column of fluid sufficient to overcome the gas pressure, and then the remaining space can be filled by pumping directly into the casing.

When gas is blowing from a well and cannot be shut in, perhaps because of the small amount of surface casing in the well, or possibly because of the casing not being properly seated, so that gas is forced up outside the casing when the valve is closed, another method is used.



Equipment for introducing fluid into a well that cannot be shut in. Well section is generalised.

The method of forcing mud-laden fluid into a gas well that cannot be shut in is shown in the second illustration.

At such a well it becomes necessary to insert a string of tubing, with a back-pressure valve at the bottom, to a point below the gas sand. After the tubing has been lowered to the proper depth, it is packed or sealed off with a casing-head tee previously placed on the well. To control the flow of gas a gate valve should be placed on the lateral discharge of this tee. As soon as the mud-laden fluid is started down the well through the tubing, the gate valve on the tee can be partly closed in such a manner as to throttle the outlet and to prevent the mud-laden fluid from being forced out of the well by the gas pressure.

The amount of throttling necessary can be determined only by the man in charge, as similar conditions will not prevail at any two wells. However, it is not difficult to ascertain how much the gas should be throttled to stop the fluid from being thrown out of the well. If a well is emitting water with the gas, the fluid can be put in just as readily in this manner, and a well with a capacity of 40,000,000 cubic feet of gas and several thousand barrels of water daily can be controlled in fifteen or twenty minutes. As is evident, the full rock pressure of the well is not maintained in the casing, and consequently no blow-out follows, as would happen were the gas forced to the surface on the outside of the casing.

Sometimes the gas in a sand has a greater pressure than that of the mud-laden fluid in the well. When this happens the fluid is blown out and the well becomes wild. It is then necessary to use a pump to establish a greater pressure in the muddy fluid than that of the gas, in order to force the mud into the sand. A sufficient pump pressure should be allowed to remain on the well for at least two or three hours and then relieved very slowly and carefully. If the pressure is suddenly reduced, not only may the column of fluid be violently ejected and the casings, fittings, and derrick wrecked, but the well may cave. If the extra pressure is maintained for several hours and then released slowly, the tools can be put into the well and drilling resumed, because the porous bed is clogged around the tools and also below them to some depth. Great care should be taken, however, not to drill too deep at one time without applying the necessary pump pressure, because the clogged portion is shallow and may be drilled through in a short time. By repeating the procedure just described, the well can be drilled through the formation in which the gas pressure is greater than that exerted by the column of fluid. Each time that pressure is applied by the pump the mud-laden fluid is driven into the bottom and sides of the bore hole, thus excluding the gas from the path of the bit, so that when drilling starts again the tools are drilling in a formation that has been filled with the clay from the fluid.

(*To be continued.*)

◆

**Explorations in the Ural Province.**—The total number of demands addressed for granting the privilege of exploration for petroleum in the Ural province prior to the 1st of June amounted to 36,541, and the number of certificates granted to 4,493. Besides the above, during the first quarter of the year, there were another 50 demands for plots in the Iskil district, 80 in the Limbiritin province and 464 in the Taisuga province.

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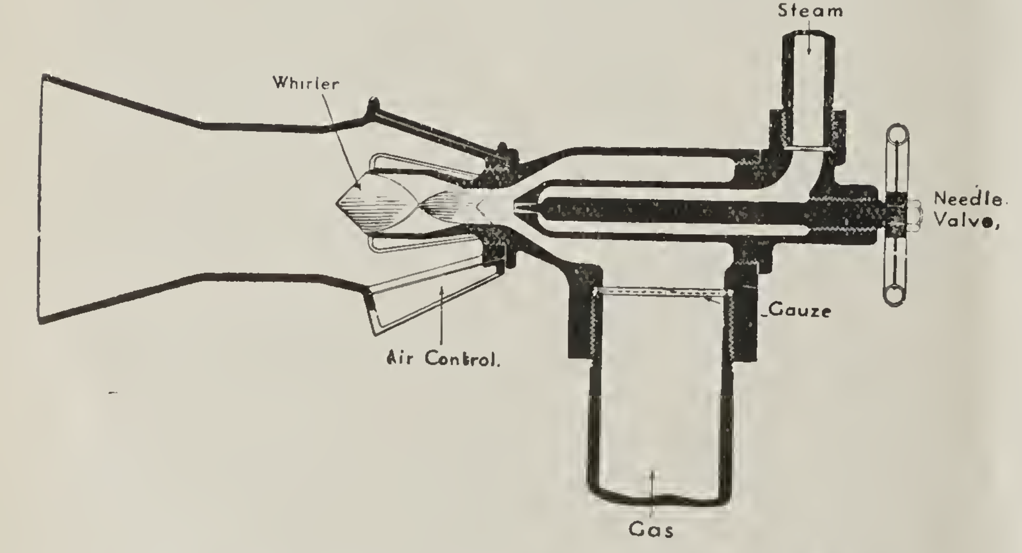

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| ,, Danubian ... | 6,900 | ,, Lutetian ... | 6,300 | ,, Oriflamme... | 5,200 |
| ,, Servian ... | 6,700 | ,, Saxonian ... | 6,200 | ,, Luciline ... | 5,200 |
| ,, Carpathian | 6,700 | ,, Teutonian ... | 6.200 | ,, Le Coq ... | 4,700 |
| ,, Roumanian | 6,700 | ,, Terek ... | 5,200 | ,, Rock Light... | 4,100 |

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# LATEST QUOTATIONS OF PETROLEUM SHARES.

## ENGLISH COMPANIES.

This list is restricted to companies who have paid dividends or who are producers.

| Company. | Share Capital Issued. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| Anglo-Maikop Corporation... | £386,862 | £1 | 11/6-12/6 |
| Anglo-Persian Oil Co., Ltd.— | | | |
| 6% Part. Pref. ... ... | 900,000 | £1 | 23/6-24/6 |
| 5% Debentures ... ... | 600.000 | £100 | 97-102xd |
| Assam Oil Co... ... ... | 310.000 | £1 | $\frac{5}{8}$-$\frac{3}{4}$ |
| Baku Russian Petroleum Co. | 711.370 | 10/- | 4/0-4/6 |
| Bibi-Eibat Oil Co. ... ... | 250.000 | 10/- | 5/0-6/0 |
| European Oilfields ... ... | 319.181 | 10/- | 5/0-6/0 |
| Lobitos Oilfields, Ltd. ... | 400.000 | £1 | 27/9-28/9 |
| North Caucasian Oilfields— | | | |
| 7% Pref.... ... ... | 78.000 | £1 | — |
| Ord. ... ... ... | 465,000 | 10/- | 40/6-41/6 |
| Oilfields Finance Corp., Ltd. | 370.010 | £1 | $\frac{11}{16}$-$\frac{13}{16}$ |
| Pacific Oilfields, Ltd. ... | 250,000 | £1 | 1/6-2/6 |
| Roumanian Consolidated Oilfields ... ... ... | 1,158,840 | £1 | 26/3-27/3 |
| Russian Petroleum Co. ... | 999.373 | 10/- | 4/0-4/6 |
| Schibaieff Petroleum, Pref... | 470.000 | fully pd. | 1-1$\frac{1}{8}$ |
| " " Ord... | 690,000 | fully pd. | 10/3-11/3 |
| Shell Transport and Trading Co., Ltd. ... ... Ord. | 4.047.610 | £1 | 5$\frac{7}{8}$-5$\frac{15}{16}$xd |
| Pref. | 2,000,000 | £10 | 10$\frac{9}{16}$-10$\frac{13}{16}$ |
| Spies Petroleum Co. ... | 750,000 | 10/- | 17/3-17/9 |

## RUSSIAN COMPANIES.

| Company. | Nom. Value in Roubles. | Latest Quotations. | |
|---|---|---|---|
| | | Lowest Roubles. | Highest Roubles. |
| Bebe-Aibat Russian Petrol Co. ... ... | 250 | 650 | 652 |
| Baku Naphtha Co. (Issue of 1908) f.-pd. | 100 | 602 | 605 |
| Caspian Society (Issue 1910) ... ... | 1,000 | 2.750 | 2,752 |
| A. I. Mantascheff & Co. ... ... ... | 250 | 228 | 230 |
| Nobel Bros.... ... ... ... ... | 5,000 | 18,200 | 18,300 |
| Nobel Bros. (Issue 1912) ... ... ... | 250 | 854 | 858 |
| Russian Naphtha Society ... ... | 100 | 170$\frac{1}{2}$ | 172 |
| Ter-Akopoff Co. ... ... ... ... | 250 | 418 | 420 |
| Lianosoff & Co. ... ... ... ... | 100 | 179 | 181 |
| Petroleum Trading Co. ... ... ... | 250 | 274 | 280 |
| Shikhovo Petroleum Co. ... ... ... | — | 395 | 400 |

## SCOTCH PRICES.

Supplied by Messrs. MACLEAN & HENDERSON, Stirling.

| Company. | Capital Paid Up. | Value of Shares. | Latest Prices. |
|---|---|---|---|
| | £ | | |
| Broxburn Oil Co., Ltd., Ord., 17/- pd. | 235,000 | £1 | 21/10$\frac{1}{2}$ |
| " 6% Cum. Pref. | 100,000 | £10 | 11$\frac{1}{8}$ |
| Burmah Oil, Ord. ... ... ... | 1,100,000 | £1 | 85/0 |
| " Pref. ... ... ... | 250,000 | £1 | 27/0 |
| Dalmeny Oil Co., Ord. (£7 paid) ... | 37,800 | £8 10s. | 85/0 |
| " 5% Pref.... ... | 18,900 | £7 | 68/0 |
| Kern River Oilfield of California, Ltd. ... | £597,192.10s. | 10s. | 7/9 |
| Mexican Eagle Oil, Ltd., Non. Cum. Pref. ... | \$8,500,000 | \$10 | 39/9 |
| Oakbank Oil Co., Ltd., Ord. ... | 170,000 | £1 | 27/3 |
| " Pref. (£1 paid) ... | 100,000 | £1 | 23/0 |
| Premier Oil Ord. ... ... ... | 2,300,000 | £1 | 4/0 |
| Pumpherston Min. Oil Co., Ltd. Ord. (17/- paid) ... | 110,500 | 17/- | 70/9 |
| " 6% Cum. Pref. ... | 100,000 | £10 | 25/9 |
| Trinidad Oilfields, Ltd. ... ... | 268,500 | £1 | 11/0 |
| Young's Paraffin Co., Ltd., Ord. ... | 452,808 | £4 | 39/0 |
| " "B" Deb. ... | 160,000 | £100 | £140 |

## DUTCH COMPANIES.

| Company. | | Quotations (per cent.). |
|---|---|---|
| Dordtsche Petroleum Industrie My., Ord. ... | Aand | 179$\frac{1}{2}$ |
| " " " " Pref. ... | " | 181 |
| Royal Dutch Petroleum Co. ... ... ... | " | 601$\frac{1}{2}$ |
| Moeara Enim Petroleum Maatschappij ... | " | 234 |
| Perlak Petroleum Maatschappij ... ... | " | 36$\frac{7}{8}$ |
| Sumatra Palembang Petroleum Maatschappij | " | 222 |
| Zuid Perlak Petroleum Maatschappij, Pref. | " | 36$\frac{1}{4}$ |
| Tarakan Petroleum Maatschappij ... ... | " | 123 |

# TRIAL TRIP OF THE S.S. "SAXONIAN."

THIS vessel, which has been built by the Greenock and Grangemouth Dockyard Company, Ltd., of Greenock, to the order of the Petroleum Steamship Company, Ltd. (Messrs. Lane & Macandrew, managers) for the carriage of oil in bulk, was successfully tried at sea last Friday, when her contract speed was exceeded. Her dimensions are:—Length between perpendiculars, 374 ft.; breadth moulded, 51 ft. 3 in., depth moulded, 29 ft. 4 in. The vessel will carry about 6,900 tons deadweight, and conforms to the Suez Canal regulations in all respects. The engines, which are of the triple-expansion type, are constructed by Messrs. Dunemuir & Jackson, Ltd., of Glasgow, and have cylinders 27 in., 44 in., and 73 in., with a stroke of 48 in., supplied with steam from three large single-ended boilers working at a pressure of 180 lbs.

The pumping arrangements are of the latest description, the vessel being fitted with three large pumps of the duplex type, capable of discharging 200 tons per hour each.

The bunkers are constructed to carry either coal or oil fuel, and the donkey boiler is fitted with the necessary mountings to conform to the Hamburg police regulations. Winches and capstans of ample power are fitted to manœuvre the vessel. Electric light installation is fitted throughout.

Both hull and machinery have been constructed to Lloyd's highest class under the supervision of Messrs. Flannery, Baggallay & Johnson, Ltd.

# ROUMANIAN PETROLEUM PRODUCTION DURING APRIL.

THE total production of petroleum on the Roumanian oilfields during April amounted to 128,627 tons, as against 161,213 tons obtained during the preceding month, thus showing a decrease of 32,586 tons. The production in the various districts was as follows:—

| | Tons. |
|---|---|
| Prahova ... ... ... ... | 114,117 |
| Dambovitza ... ... ... ... | 2,937 |
| Buzau ... ... ... ... ... | 7,761 |
| Bacau ... ... .. ... ... | 3,812 |
| Total ... ... ... . | 128,627 |

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— THE —
PETROLEUM REVIEW,
*45, St. Mary Axe, LONDON, E.C.*
American Office: 111, Broadway, New York.

Saturday, June 27, 1914.

## THE SUCCESS OF THE ROYAL DUTCH.

A FORTNIGHT ago we published striking particulars of the success of the "Shell" Company—the sister concern to the Royal Dutch—and we are now pleased to refer to the success of the latter combine.

In order to appreciate the remarkable development of the Royal Dutch Company, it is necessary to briefly refer to the history of its growth and the position it now occupies, though the fact of its paying 48 per cent. dividend upon the ordinary shares is in itself eloquent evidence in this respect.

In December, 1900, when recording the death of Mr. J. B. August Kessler, the then managing director of the Royal Dutch Company, we mentioned the fact that the chief success of the concern was due to its being under his own management, and that his method was to place a good man in a responsible position, and give him practically a free hand in his own department.

This principle was fortunately continued by his successor—Mr. H. W. A. Deterding—and in 1900 and 1901 the Royal Dutch Company, which at that time was most successful, found that its production in the Dutch Indian fields was considerably reduced, so that it had to resort to purchasing Russian oil and transporting it to the Far Eastern markets.

At that time Sir Marcus Samuel was chiefly dealing in the import of Russian oil in bulk in the Far East, and severe price-cutting competition took place between the two companies. Naturally the two leaders of these concerns—Sir Marcus Samuel and Mr. Deterding—came to the conclusion that it was in their interests to join forces, and to market their own oil in the Far East and Europe. In order to do this they have laid down very extensive distribution works in the Eastern hemisphere, and arrangements have been made for marketing the products and also the Rothschilds' kerosene from Russia, as well as the output of the Dutch Indian producers.

A company was then formed under the name of the Asiatic Petroleum Company, Ltd., in which Messrs. Rothschilds and Sir Marcus Samuel (on behalf of the "Shell" Company) and Mr. Deterding (on behalf of the Royal Dutch Company) have taken up one-third of the capital. At the same time the Asiatic Petroleum Company entered into arrangements with the British Petroleum Company (in which company the Rothschilds' interests were predominant) to distribute the motor spirit which they have contemplated bringing into this market from the Dutch Indian and Borneo fields.

Having entered into the amalgamation, Mr. Deterding has undoubtedly proved himself to be one of the most valuable and most ingenious members of that remarkable combination of wealth, power, and business capacity.

In connection with the distribution of the products in the Far East and Europe, it very soon became evident to Mr. Deterding that the acquisition of a large portion of the shares of the "Shell" Company would be of the greatest benefit and advantage to his Dutch Company, and this accomplished, the success and prosperity of the amalgamation increased by leaps and bounds.

Once being in the European market, Mr. Deterding recognised the necessity for the company to participate in the rapid development of the petroleum industry in Roumania, and to extend its interests to the oilfields of America, Mexico, Trinidad, and Egypt, as well as and especially Russia, where the distribution of the products of the Rothschilds in the Russian markets was handed over exclusively to the combine, thus placing the Royal Dutch and its allies in a position of world-wide influence.

The forward policy of the company in securing a footing in the most prominent oilfields of the world has placed it in the supreme position with regard to regulating distribution, and also maintaining profitable prices.

The chief success of the Royal Dutch Company, of which Mr. Deterding has been at the head for nearly fourteen years, is due to the fact that he has always been a gentleman of similar character to his predecessor —Mr. Kessler—having a steadfast purpose and an unswerving integrity, and he has always acted to his subordinates as Mr. Kessler did to his.

The Royal Dutch Company, in a word, can boast of an organisation and a management second to none in he world of commercial enterprise.

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## THE ANGLO-EGYPTIAN OIL FIELDS, LTD.

THE output of crude oil on the properties of the Anglo-Egyptian Oil Fields, Ltd., at Gemsah, for the week ended the 23rd inst., has been 1,715 tons, and at Hurgada, 120 tons.

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## OUTPUT OF BAKU REFINERIES DURING MARCH.

THE output of petroleum products from the Baku refineries during March was as under :—

| | Distillate. Poods. | Refined Products. Poods. |
|---|---|---|
| Kerosene ... ... ... | 7,907,935 | ... 7,671,387 |
| Solar oil (light) ... ... | 393,354 | ... 7,835 |
| ,, ,, (heavy) ... | 459,361 | ... — |
| Lubricating oils .. ... | 2,249,179 | ... 1,742,998 |
| Residuals ... ... ... | 12,608,772 | ... — |
| Benzine .. ... ... | 1,237,926 | ... 108,226 |
| Lubricating residuals ... | 3,804,744 | ... — |
| Goudron .. ... .. | 70,802 | ... — |
| Paraffin ... ... ... | 3,706 | ... — |
| Refined paraffin ... ... | — | ... 2,270 |
| Total ... | 28,735,779 | 9,532,716 |

## CLASSIFIED IMPORTS INTO THE UNITED KINGDOM UP TO JUNE 22nd, 1914.

[ALL RIGHTS RESERVED.]

IN GALLONS.

| COUNTRY. | ILLUMINATING. | | LUBRICATING. | | RESIDUALS. | | GAS OIL (Solar). | | BENZINE. | | FUEL OIL. | | OTHER DESCRIPTIONS. | | TOTALS. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. | Since June 15. | From Jan. 1. |
| Belgium .. | — | — | 10.020 | 371.420 | — | 2,000 | — | — | — | 32,220 | — | — | — | 1,350 | 10.020 | 406,990 |
| Canada .. | — | — | 2,500 | 6.900 | — | 47,300 | — | — | — | — | — | — | — | — | 2,500 | 54,200 |
| Dutch Indies | — | — | — | — | — | — | — | — | 3,450,100 | 27,972,460 | — | 83.400 | — | 1,748,910 | 3,450,100 | 29.804.770 |
| Germany .. | — | 29,250 | 29.450 | 1,294 090 | — | — | — | — | — | — | — | — | — | 4,300 | 29,450 | 1,327,640 |
| Holland .. | — | — | — | 5.410 | — | — | — | 182,000 | 341,000 | 3,710,780 | — | — | — | 11,210 | 341,000 | 3,909,400 |
| Mexico .. | 1,295,000 | 5,167,570 | — | 11,800 | — | — | — | — | — | 1,218.860 | 2,027,710 | 9,065.080 | 94,040 | 462.340 | 3,416,750 | 15.925,650 |
| Roumania .. | 870,000 | 8,529,900 | — | — | — | 961,440 | — | — | 1,648,130 | 4,303,380 | — | 2,348.570 | — | — | 2,518,130 | 16.143.290 |
| Russia .. | — | 2,909,650 | 908,870 | 3.517.330 | — | — | — | — | — | 10.202.600 | — | — | — | 630 | 908,870 | 16 630,210 |
| U.S.A. .. | 2,676,590 | 50,392,020 | 517,300 | 23,319,870 | 3,580 | 102,110 | 1,138,770 | 35,462,470 | — | 10,489.680 | 869,560 | 6,923,490 | — | 288,740 | 5,205,800 | 126,959,970 |
| Other Countries | — | 3,770 | 6,920 | 169.600 | — | — | — | 1,460 | — | 210 | — | 4,800 | — | — | 6,920 | 179.840 |
| | 4,841,590 | 67,032,160 | 1,475,060 | 28.686,420 | 3,580 | 1,112,850 | 1,138,770 | 35,645,930 | 5,439,250 | 57,930,190 | 2,897,270 | 18,425,340 | 94,040 | 2,517,480 | 15,889,540 | 211,341,960 |

## AMERICAN NOTES.

**Californian Oil Dividends.**—During the first six months of the present year the various companies operating in the Californian fields have paid just over $5,000,000 in dividends, one-half of these having been paid by the Standard Oil Company.

**Pierce Oil Corporation.**—During the present week, at a meeting of the stockholders of the Pierce Oil Corporation at Richmond, Va., it was decided to increase the capital of the corporation to $30,000,000. The additional $9,000,000 is required for the purposes of expansion.

**New Californian Companies.**—Among the new companies recently formed for operating in the Californian fields, the following are the most important:—The Trojan Oil Company, Los Angeles, with a capital of $500,000; the Bel Ridge Eighteen Oil Company, capital $100,000; and the Lompoc Monarch Oil Company, with a capital of $1,000,000.

**Enormous Increase in Production.**—The daily production of oil in the Mid-continent fields, the regions of Texas, Panhandle, the Caddo, and the Gulf Coast fields, is now about 358,000 barrels, and that of the Eastern fields and Illinois is 130,000 barrels, so, including Wyoming, the output from these fields is half a million barrels daily, or 45 per cent. over the average for the past year.

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## RUSSIAN NOTES.

**New Auction Leases.**—The new auction leases, which were annulled by the Senate, are fixed for September 28th next. The conditions for these auctions have considerably changed.

**The Emba Caspian Fields.**—At St. Petersburg cables have been received to the effect that oil has been obtained at Dossor, on the fields of the Emba Caspian Company, from well No. 7, which has commenced spouting gas and oil.

**Improvements in the Port of Rakusha.**—Considerable improvements are being planned in the port of Rakusha, and in order to study this question a special expedition is being sent there. The expenditure for this preliminary investigation will amount to 12,000 or 15,000 roubles.

**Kaluga Petroliferous Area.**—At Kaluga, in the Kuban province, on plot No. 8, where the Vladikavkas Railway is carrying out exploration work, the overflowing of heavy petroleum from one of the wells, which began at the end of March last, still continues. The well is now at a depth of 196 ft.

**The Oil Tax in Kind.**—The Mining Department announces that the oil tax in kind on the production of the State plots leased by the firms Nobel, Mantascheff, Pitoeff, and Melikoff has to be delivered to the Navy, while that on the production of all other plots to the Ministry of Ways of Communication.

**Fire at Maikop.**—On the night of June 12th a fire occurred at the refinery of the Maikop Refineries Company, which lasted over twenty-four hours, and was accompanied by explosions, destroying the distillation plant, two pumping stations, and considerable stores of petroleum products. The damage is estimated at about 70,000 roubles.

**The Emba Company's Production during the First Quarter of the Year.**—The total production of the Emba Company at Dossor during the first quarter of the year amounted to 1,486,031 poods, as against 435,311 poods obtained during the corresponding period last year. The production during April amounted to 355,674 poods.

**Enquiry into the Question of Inundation of Wells with Water.**—The Balakhani Committee appointed for the purpose of investigating this question has addressed a demand to all the firms to which it has previously sent lists of questions to forward to the committee the answers without delay, as the subject is of great importance for the whole of the petroleum industry.

**Difficulties in the Transport of Petroleum Products from Grosny.**—The transport of petroleum from the Grosny district during the first months of this year have exceeded those of the corresponding period of 1913 by 63 per cent., and the question of transport becomes a very difficult one. Now, however, the Vladikavkas Railway has undertaken certain measures which will considerably obviate these difficulties. Among other facilities, the railway has considerably extended the Grosny station and has also increased its capacity as regards the loading and unloading of petroleum products.

## THE JOHNSTON ROTARY DRILL IN JAPAN.

### A Gusher Struck on the Property of the Nippon Oil Company.

Mr. K. Ito, Superintendent of the Investigation department of the Nippon Oil Company in Japan, has communicated to Reuter the following details concerning the prolific spouter which has been recently struck on the company's property in the Kurokama field (Echigo Province):—

"Work was commenced on the new well during the first part of April this year with one of the company's up-to-date Johnston rotary machines. After drilling through ordinary earth and rock to a depth of some 1,110 ft., a stratum known to oil experts as the 'the shell' was encountered. At midnight of May 25th the drill pierced through this shell, or crust, at a depth of 1,368 ft., into what is apparently the lead bed of an extraordinary deposit. It is from this bed that the present unusual flow continues. That which is most extraordinary is the fact that the other five wells of the company in that district, which heretofore required suction pumps, have also begun flowing of their own accord. But the flow is so steady and, being unattended by an extraordinary force, is easily controlled. Even the flow of the new well can be controlled at any time, as it flows in a steady stream. The new well was sunk with an eight-inch casing, which has been capped with a four-way head, thereby controlling the flow. The output was at first somewhat difficult to handle, as no provision had been made for such an unusual quantity. The sump at the top of the hill, which had been constructed to receive the flow, was soon filled, and the overflow was conducted down into the upper-level fields, where many hands erected a dyke forming a very large sump.

"This, however, was soon filled, and the overflow was again conducted down into the valley below, where another large sump was hastily constructed. Four or five other sumps are now being constructed on this lower level, into which the flow will be directed. By means of the four-way cap the output has been reduced from 480,000 to 120,000 gallons per twenty-four hours, and when the sumps now in construction have been filled the flow will again be reduced. In the meantime the other five wells, owing to want of labour to control them, have been checked entirely. From the time of the opening of the well until the four-way cap was in place the output was about 480,000 gallons per twenty-four hours.

"Of course, this very fortunate production will more or less affect the other companies in Japan, but our company does not intend to create any panic in price reductions. Naturally, we intend utilising the output to our best advantage, but do not intend flooding the market, nor do we intend enlarging our refineries, for the present at least. The Imperial navy, as well as the Imperial railways, are in need of oil for fuel, and this discovery fills a long-felt want. Therefore we not only consider it a good fortune to the company, but a very valuable asset to the nation as well. It is the intention of the company to dispose of the greater part of the production in the crude state, refining only that quantity which may be conveniently handled by our refineries at Tsuchizaki."

# THE SPIES PETROLEUM COMPANY, LTD.

## A 17½ PER CENT. DIVIDEND.

The report of the Spies Petroleum Company, Ltd., for the year ended December 31st, 1913/January 13th, 1914, to be presented at the fifteenth meeting next Thursday, states that the net production, after deducting leakage and water, amounted to 13,583,640 poods. The stock on hand at January 1st/14th, 1913, was 184,331 poods, which, with the net production during the year of 13,583,640 poods, made a total of 13,767,971 poods, of which there were sold and delivered 10,895,105 poods, used as fuel 2,435,782 poods, paid as royalty in kind 265,204 poods, leaving in stock on December 31st, 1913 (o.s.), 171,880 poods. The above figures of net production shows a decrease as compared with the preceding year of 2,484,781 poods. The crude oil sold and delivered, as above, realised 3,558,429·09 roubles, an average price of 32·66 copecs per pood (including 6,500,000 poods sold at 25 copecs per pood under contract recently rescinded), as compared with an average price in the preceding year of 30·78 copecs. After charging to revenue the cost of deepening (£22,656) and the maintenance of buildings, machinery and plant, the results are as follows :—The net profit for the year is £192,120. Adding the net balance brought forward, £26,456, and premium on shares issued last year, less expenses, £107,490, the total is arrived at of £326,066, from which have to be deducted Russian taxes for 1912, £17,676, making a total available for appropriation of £308,390. Of this amount the directors have placed to depreciation of buildings, plant, etc., £130,000, and have transferred to special reserve £30,000, and the interim dividend at the rate of 15 per cent. per annum absorbed £56,250, which leaves £92,140. The directors now recommend a further dividend of 1s. per share, making with the interim dividend a total distribution for the year at the rate of 17½ per cent., and absorbing £100,000, from which has to be deducted the sum of 1s. per share paid by subscribers for 500,000 shares on account of final dividend to be declared, £25,000, leaving to be carried forward £17,140, out of which Russian taxes and directors' additional remuneration under article 88 have to be provided. The production for the first five months of the current year has amounted to 6,008,230 poods, against 6,338,925 poods for the corresponding period of 1913. Although the production during this period shows a decrease on the figures of 1913, the oil sold has realised 1,575,809·83 roubles, against 1,252,446·50 roubles in 1913, the average price obtained being 34·59 copecs per pood, against 25 copecs. The profits of 1913 were severely affected by a strike of workmen, which lasted from August 30th to September 19th (N.S.), which, at the then price of oil, caused a loss of revenue to the company of about £45,000. The strike involved not only loss of market, but considerable expense during its continuance and a permanent increase in wages. Small sectional strikes on certain of the company's properties also occurred during the currency of the present year. Further work having shown that there was no probability of overcoming the water in the six most westerly of the thirteen western plots, it has been decided to stop working on them. The pipes are being withdrawn and the wells plugged. The well, the proposed sinking of which to test the deeper strata was mentioned in the last report, has reached the depth of 1,057 ft. During the past year a new well was brought into production on the Mistouloff plot, which is giving a good output, while five other wells are in process of boring in this section, of which two are close to the oilsand and are expected to yield satisfactory results. The Baskakoff plot, which has been for some years past, and still is, the company's best producer, has shown a considerable falling off in production, and drilling at depth is now proceeding, with a view to tapping the lower oilsands. The boring in the four wells upon the South Baskakoff plotsw as continued during the past year, and on March 25th of this year an oilsand, having a thickness of 89 ft., was encountered in well No. 1 upon plot 127. This well gave a very good production on trial baling, and when deepened into the sand began to overflow on May 18th, the overflows continuing with some interruptions until June 3rd. On May 29th, however, a small quantity of water showed in the well and the technical committee was called in on May 30th to investigate. By June 1st the water had greatly increased, and the finding of the committee was that upper water had broken into the well. Under these circumstances, it has become necessary to plug the well up to the level of the water sand for the purpose of re-shutting off water. The completion of the three other wells which are being drilled in this section will also be retarded, as special methods will have to be adopted in order to obviate as far as possible the chance of a similar occurrence in these wells. The management are of opinion that when these four wells are brought into production they should quickly make up for the temporary diminution. Development on the Kousmin plots during the past year has been satisfactory. the production obtained having been nearly twice that of 1912. Four new wells are in process of drilling, one of which is approaching the depth at which production may be expected. During the past year drilling has been, and is still being, much delayed owing to the difficulty of obtaining delivery of pipes and iron for casing, which has necessitated the ordering of iron abroad at a materially increased cost. Work upon the central power station progressed satisfactorily during the year, and baling has been started by means of electric power in certain wells on the Baskakoff plot, and this power will be gradually applied to other wells. The directors hope, therefore, that before long electric power will have entirely displaced steam for baling and pumping, and that the large economies in fuel anticipated from it will manifest themselves during the current year. The matter is of importance, on account of the constantly increasing depth at which all operations have to be carried on. In spite of the fact that a greater quantity of natural gas was available for generating steam during the past year, the consumption of crude oil for fuel increased by 182,520 poods and amounted in all to 2,435,782 poods, of a value of about 800,000 roubles. The new company formed to take over certain outside interests acquired during the past year by this company in various places in the Terek Government, was registered on January 9th, 1914, and the initial capital of £200,000 was subscribed by this company, jointly with other parties. The Spies Company has an interest of over 50 per cent. of the capital, and holds options over 157,500 shares at varying prices for a period expiring January 10th, 1917. The Terek General Oil Company has commenced working upon its properties in the Belik-Chermoieff field, near to the town of Grosny, and four wells have been started, which have attained considerable depths. In this new field a number of wells have been brought into production on neighbouring properties and have given satisfactory results. The Terek General Oil Company is also making arrangements to commence work upon its Wossnessensk properties, upon which a favourable report has been made by the company's geologist, Dr. Porro. In accordance with the arrangements outlined by the chairman at the extraordinary general meeting held on December 11th last, 500,000 shares have been issued. Of these, 186,000 shares have been taken firm by the guarantors before the date of the balance sheet. The remaining 314,000 shares have been issued during the current year, having been subscribed partly by the shareholders and partly by the guarantors. The issued capital of the company, therefore, now amounts to £1,000,000, in 2,000,000 shares of 10s. each, while there are 1,000,000 shares of 10s. each unissued.

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# THE ZORRITOS OILFIELDS.

## ESTABLECIMIENTO INDUSTRIAL DE PETROLEO DE ZORRITOS.

*Reprinted from "Peru To-day."*

*(Concluded from page 616.)*

The natural gas from the Zorritos wells is handled in the same way, and as this product is found in great abundance, it is used to provide light, heat and power throughout the establishment. Natural gas is used in the operation of three engines in the Zorritos shops and also supplies fuel for two engines used in drilling operations. The engines were manufactured by the English firm of Tangyes, Limited. This is probably the first time that natural gas has been utilized in drilling operations in South American oilfields.

The production of petroleum from the Zorritos fields, per annum, since 1906, has been as follows (the 1913 production is estimated) :—

| | |
|---|---|
| 1906 | 1,481,668 gallons. |
| 1907 | 2,155,798 ,, |
| 1908 | 2,190,800 ,, |
| 1909 | 2,971,510 ,, |
| 1910 | 3,091,050 ,, |
| 1911 | 3,549,250 ,, |
| 1912 | 3,280,000 ,, |
| 1913 | 3,500,000 ,, |

A conservative estimate has been given for the 1913 production, which will in all probability exceed 3,500,000 gallons, while there is every indication that the production for 1914 will show a notable increase.

In order to increase the efficiency of the oil producing machinery and running equipment at Zorritos, a large repair shop has recently been constructed at some distance from the Santa Rosa beach, near the refinery, where all necessary work of this sort is performed by competent machinists, carpenters and iron-workers, thus reducing the waste factor, from the source of idle machinery, to a minimum.

The repair shop occupies a ground area of 1,500 square ft., the building being 100 ft. in breadth and 150 ft. long. The central section of the repair shop, 40 ft. in width, is occupied by the mechanical and iron-working departments, the machinery in this section being operated by a 30 h.p. natural gas engine. The left wing of the building, 30 ft. in width, is occupied by the carpentering, cooperage and wood-working departments, a 15 h.p. gas engine having been installed here. The right wing of the building is used as a general storehouse. In addition there are three other store-houses, located between the Santa Rosa beach and Zorritos proper.

For a number of years a refinery has been operated by the Zorritos company, producing kerosene, turpentine, various grades of gasoline, lubricating oils and fuel oil. This section of the Zorritos industry is the only refinery of importance in Peru, and is also noteworthy for its modern equipment and for the general excellence of the products manufactured. They were awarded gold medals at the Expositions of Berlin, 1886; Lima, 1892; San Francisco, Cal., 1894; and Quito, 1909.

There are three stills of 8,500 gallons capacity each, and a new still of 15,000 gallons capacity has recently been erected. The refinery receives its water supply from a cement tank of 500 cubic metres capacity. This tank was erected on a hill to facilitate the distribution of water. A powerful centrifugal pump located on the mole keeps the tank full.

The following petroleum products are elaborated by the Zorritos refinery :—

| | | |
|---|---|---|
| Gasoline (E.) | 78° Beaumé; | 0·6716 specific gravity |
| Gasoline (A.C.) | 75° Beaumé; | 0·6829 ,, ,, |
| Gasoline (C.) | 68° Beaumé; | 0·7070 ,, ,, |
| Gasoline (D.) | 65° Beaumé; | 0·7179 ,, ,, |
| Mineral Turpentine | 58° Beaumé; | 0·7446 ,, ,, |
| Kerosene (L.B.) | 46° Beaumé; | 0·8000 ,, ,, |
| Residue | 27° Beaumé; | 0·8917 ,, ,, |

At the present time from each 1,000 gallons of petroleum treated at the Zorritos refinery, there is produced:—

| | |
|---|---|
| 130 gallons of gasoline | 65° Beaumé. |
| 400 gallons of kerosene | 46° Beaumé. |
| 400 gallons of residue | 27° Beaumé. |
| 70 gallons of incondensible gas. | |

The total production of kerosene and gasoline per annum, since 1906, has been as follows :—

| Year. | Gasoline. | Kerosene. | Total. |
|---|---|---|---|
| 1906 | 6,400 gallons | 26,722 gallons | 33,122 |
| 1907 | 10,120 ,, | 36,774 ,, | 46,894 |
| 1908 | 7,384 ,, | 37,669 ,, | 45,053 |
| 1909 | 9,652 ,, | 46,961 ,, | 56,613 |
| 1910 | 8,442 ,, | 54,900 ,, | 63,342 |
| 1911 | 14,124 ,, | 55,004 ,, | 69,128 |
| 1912 | 22,644 ,, | 47,662 ,, | 70,306 |
| 1913 | 30,000 ,, | 57,000 ,, | 87,000 |

The tin cans and boxes used in the shipment of the petroleum products from Zorritos are all manufactured there, a tin shop being conducted in connection with the industry. The refined oil is shipped in five-gallon cans, which are packed in boxes of two cans each. With the beginning of the new year it is planned to commence the construction of a new tin shop, in which modern can-making machines, recently received, will be installed. These machines will greatly increase the output of the plant and keep pace with the growth of other departments.

The Zorritos establishment fronts to the north on Zorritos Bay, which provides excellent anchorage for all of the vessels calling at this port. At a distance of 1,800 ft. from shore the water is 20 ft. deep. An excellent steel mole, 1,100 ft. long and 20 ft. wide is in use at the present time. A steam derrick has recently been installed at the mole head, capable of lifting five tons. The Decauville railway system extends out along the mole so that shipments are handled with the greatest facility. All of the boxed products are carried to the pier head by this means. On the other hand, the crude petroleum is carried by a six-inch iron pipe line to the pier head and from there a large rubber hose conducts it out to the tank ships. This hose is mounted on *balsas* or rafts.

Lighterage in the port is carried on by means of five large scows and a small tug. There are also a number of floating buoys of large size for providing convenient anchorage.

At the present time the purchase of the Zorritos Oilfields by a strong foreign syndicate is under consideration. The representative of this syndicate, which holds extensive properties on the islands of Sumatra and Borneo in the Dutch East Indies, with an annual production in excess of 2,000,000 metric tons, recently returned to Lima, following a visit to the Zorritos, as well as the Lobitos and the Cabo Blanco zones. Referring to the former zone, he states that he was most favourably impressed by the appearance of the property and by the outlook for future production. The small production of the fields, in comparison with the Lobitos property, he attributes chiefly to the fact that no attempt has so far been made to carry the wells to a deeper level than 1,700 ft. With the investment of more capital and carrying the wells to a depth of 2,500 ft., or more, there is every promise that the output will compare favourably with that of Lobitos, where the results from deep borings have been so satisfactory. Reference was made above to the increased output resulting from the cleaning or "washing" of wells that have been in operation for some time. In the case referred to the output of an 800-ft. well was tripled, advancing to a production of from 4,000 to 5,000 gallons every 10 hours. The expert, referred to above, states that the quality of the petroleum produced is far superior to that produced in the Dutch East Indies, and he is confident that with the investment of more money the production of the Zorritos fields can be increased very considerably.

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## DETAILS OF PRODUCTION AND BORING ON THE SURAKHANI OILFIELDS.

THE following table shows the details of production of petroleum and boring on the Surakhani oilfields during February :—

| | No. of wells bored. | No. of feet bored. | Production (in poods). | | |
|---|---|---|---|---|---|
| | | | Gas. | White Oil. | Black Oil. |
| Asadulaieff ... ... ... | 4 | 420 | — | — | 148,790 |
| Baku Petroleum Company ... | 10 | 189 | 16,555 | 35,000 | 2,230,992 |
| Benkendorf ... ... ... | 13 | 945 | 8,465 | 355 | 259,657 |
| Baku-Tiflis Society ... ... | 5 | 805 | — | — | 40,800 |
| Caspian Society... ... ... | 2 | 7 | — | — | 39,900 |
| Caspian and Black Sea Society | 7 | 833 | 29,300 | — | 864,200 |
| Lukin & Gabbe ... ... ... | 1 | 301 | — | — | 122,300 |
| Mantascheff & Co. ... ... | 1 | 28 | — | — | — |
| Melikoff & Makmuroff... ... | 2 | 189 | — | — | — |
| Mirzoeff Bros. ... ... ... | 7 | 637 | 11.200 | — | 210,800 |
| Nagieff Mussa ... ... ... | 2 | 196 | — | — | — |
| Nobel Bros. ... ... ... | 20 | 2,485 | — | — | 744,884 |
| Pitoeff ... ... ... ... | — | — | — | — | — |
| Rilski Trustees ... ... ... | 5 | 329 | — | — | 103,000 |
| Russian Petroleum Company... | — | — | — | — | — |
| Russian Nafta Society... ... | 7 | 819 | — | — | 84,800 |
| St. Petersburg Russian Society | 1 | — | — | — | — |
| Surakhani ... ... ... | 4 | 1,246 | — | — | 112,000 |

## AMERICA'S FOREIGN ILLUMINATING OIL TRADE.

### Nine Months' Statistics.

THE export of illuminating oils from America during the nine months—July to March—of the fiscal year, as compared with the figures for the two corresponding periods are given in the following table in gallons :—

| | Gallons. 1912. | Gallons. 1913. | Gallons. 1914. |
|---|---|---|---|
| Belgium .. .. | 37,248,841 | 42,788,105 | 45,536,562 |
| Denmark .. .. | 18,291,118 | 25,236,370 | 27,508,681 |
| France .. .. | 29,532,965 | 45,136,853 | 48,985,085 |
| Germany .. .. | 67,505,212 | 88,543,287 | 59,718,572 |
| Italy .. .. | 26,433,025 | 17,132,159 | 32,140,967 |
| Netherlands.. .. | 80,581,939 | 99,804,017 | 119,532,132 |
| Sweden .. .. | 13,965,105 | 19,485,010 | 24,121,757 |
| United Kingdom .. | 127,953,817 | 129,586,844 | 146,061,620 |
| Other Europe .. | 25,707,577 | 20,822,125 | 29,246,667 |
| Canada .. .. | 9,341,897 | 14,394,538 | 13,956,194 |
| Cuba .. .. | 254,877 | 1,399,966 | 1,301,761 |
| Other West Indies and Bermuda .. | 5,033,874 | 4,842,803 | 5,048,728 |
| Argentina .. .. | 19,954,528 | 17,133,018 | 13,508,378 |
| Brazil .. .. | 25,499,060 | 23,873,702 | 23,167,603 |
| Chile .. .. | 4,886,082 | 5,138,624 | 5,045,182 |
| Other South America | 8,171,269 | 10,261,255 | 10,252,387 |
| China .. .. | 48,327,792 | 44,345,730 | 55,084,277 |
| British India .. | 46,246,461 | 26,173,142 | 26,676,784 |
| Dutch East Indies .. | 10,165,390 | 10,597,453 | 15,045,080 |
| Hong Kong .. .. | 12,440,710 | 2,026,090 | 14,146,017 |
| Japan .. .. | 82,774,168 | 60,707,733 | 59,145,658 |
| Brit. Oceania .. | 20,469,449 | 17,223,304 | 24,369,655 |
| Philippine Islands .. | 9,588,330 | 7,994,472 | 7,836,478 |
| Brit. Africa .. .. | 12,331,511 | 10,139,975 | 12,315,739 |
| Other countries .. | 30,595,577 | 33,320,884 | 33,917,249 |
| Totals .. .. | 773,300,574 | 778,107,459 | 853,669,213 |
| Values .. .. | $42,940,507 | $47,795,608 | $55,029,167 |

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## THE PETROLEUM TRADE OF BATOUM.

### Statistics for the First Quarter, 1914.

THE total imports of petroleum products into Batoum during the first quarter amounted to 11,971,775 poods, total exports abroad to 9,047,820 poods, and the total exports inland to 1,578,885 poods. The following table shows the details of the imports to and exports from Batoum during the first quarter :—

| | Imports. Poods. | Exports. Abroad. Poods. | Exports. Inland. Poods. |
|---|---|---|---|
| Kerosene ... ... ... | 8,432,515 | 6,478.243 | 1,510,233 |
| Lubricating oil ... ... | 2,389,892 | 1,982.076 | 59,812 |
| Residuals ... ... ... | 929,581 | 537,756 | 1,197 |
| Crude oil ... ... ... | 219,787 | — | 7.155 |
| Other products ... ... | — | 49,745 | 488 |
| Totals ... ... ... | 11,971,775 | 9,047,820 | 1,578.885 |

The total imports of petroleum products during March amounted to 2,893,101 poods, total exports abroad to 2,459,984 poods, and the total exports inland to 446,354 poods. The following table shows the details of the imports to and exports from Batoum during March, as well as the quantities in store on April 1st :—

| | Imports. Poods. | Exports. Abroad. Poods. | Exports. Inland. Poods. | In store on April 1. Poods. |
|---|---|---|---|---|
| Kerosene ... ... | 1,995,663 | 1,625,429 | 424,334 | 3,795,176 |
| Lubricating oil ... | 681,575 | 505.546 | 21,246 | 2,742,823 |
| Residuals ... ... | 155,184 | 314,310 | 277 | 628,377 |
| Crude oil ... ... | 60,679 | — | 497 | — |
| Other products ... | — | 14,699 | — | — |
| Totals ... | 2,893,101 | 2,459,984 | 446,354 | 7,166,376 |

# The "Shell" Transport and Trading Company, Ltd.

## CONTINUED EXPANSION OF THE COMPANY'S INTERESTS.

On Monday the ordinary general meeting of the "Shell" Transport and Trading Company, Ltd., was held at Winchester House, E.C., the chairman of the company, Sir Marcus Samuel, Bart., presiding.

Sir Marcus, in moving the adoption of the report and balance-sheet, said: Never has it been my privilege to submit to you such a balance-sheet as I now have the pleasure of putting before you for the year ended December 31st, 1913. After providing a sum of £14,921. 2s. 6d. for depreciation on investments (we never take credit, as against this item, for appreciation on securities already written down); after debiting to profit and loss not only the entire expenses on the new issue of preference and ordinary capital amounting to £5,202. 3s. 3d., but the entire stamp duty on increase of capital £12,500, we are still able to carry to the balance-sheet £1,800,259. 13s. 4d. I must refer a moment to the figures on the liabilities side of the balance-sheet.

You will find that during the current year £900,000 (very largely derived from premium on new shares) has been added to the reserve, raising this item to £3,900,000.

Whilst the amount of the carry forward this year is shown as £326,564. 6s. 7d., it is in reality £18,398. 4s. more, because you will see that in the appropriation statement we have given the full amount of the second interim dividend actually paid out to the shareholders. It must be borne in mind, however, that there stands at the credit of dividend account the amount of £18,398. 4s., as shown in the balance-sheet, which will be brought into effect in the 1914 accounts.

The dividend of 35 per cent. for the year, which is paid free of income tax, is payable upon £4,047,610; whilst preference dividend has been paid on the full capital of £2,000,000—both being materially larger sums than in the previous year.

In securities invested outside the business, in bills receivable, fixed deposits with bankers, and cash at bankers on current account and at short notice, we had in hand at the close of the year £2,100,000 of liquid resources.

In the brief summary which was issued with the report, the item to which I wish to direct your attention is the fact that the Anglo-Saxon Petroleum Company, Ltd., and the Bataafsche Petroleum Maatschappij have set aside for depreciation for the year £1,218,000, this making with that set aside from the inception of those companies in 1907 £5,508,000, or 55 per cent. of the original capital. Nor is this all. Every subsidiary company in which we have a voice is financed on the same sound lines. Each provides its own depreciation.

Whilst I am on the question of the resources of the Company, you must have observed, with the pleasure that it has given your directors, the fact that the Bataafsche Insurance Fund has been raised during the year by a sum of no less than £260,000, and that it now stands at £760,000.

The year under review has been not only a fortunate but a most interesting one. Upon the declaration of tho British Admiralty that they had decided to use liquid fuel on a large scale in view of its overwhelming advantages (so constantly demonstrated to them by this Company by taking their engineers on "Shell" boats and imparting to them all the knowledge we obtained), hopes were raised high that the policy of a fair field and no favour would at length prevail. Under this stimulating influence, a determined effort was made by all the producers to furnish the Admiralty with such a supply of liquid fuel as would warrant them in continuing in their enlightened policy of increasing the units in the fleet to burn oil, for we are convinced that a coal-fired fleet cannot survive against one driven by oil. Great success has attended our efforts, which were devoted (in so far as prospects of success existed) to the development of fields all over the world, especially including British territory or places under British jurisdiction.

The First Lord of the Admiralty has misconstrued this action, and has assumed that our purpose was to raise prices. The motive that prompts us is to obtain large, constant, and widespread supplies from as many sources as possible. This obviates dependence upon any one field, and enables us to undertake business and give contracts of supply practically without a *force majeure* clause. A fleet, once on liquid fuel, cannot afford to contract and be subject to a *force majeure* clause which quite suddenly becomes operative. It is in the best interests of consumers that certainty of supply should be secured.

When I last had the pleasure of addressing you, our production in Sarawak was about 65 tons a day. It is now 200 tons a day. This proven field has been brought into bearing at an expenditure of only £225,000—the item at which it stands in your books to-day.

A great change has come over the position in Egypt. A few months ago we were frankly pessimistic as to the outlook of that field.

We are more fortunate than most companies in the fact that we have in our service a staff of geologists whose experience in very widely separated countries is probably unique in the oil world. In passing, I may tell you that we have also a school for the training of boremasters by practical experience, and this has often stood us in good stead.

In Egypt, our geologists found there were signs of oil akin to those which they had observed in another territory where we are working. Following their indication, a well was put down on a site chosen. It proved to be a remarkable and astounding well. Up to that time wells of 100 or 200 tons a day were looked upon as phenomenal, whereas the well in question gave an initial production of 4,000 tons per day.

It was quite impossible to deal immediately with such a flow of oil, and a great deal of it was lost. Owing to the necessity of bottling it down to proportions with which we could deal, it was never flowed to its full capacity. After some time an incursion of water took place, which caused us grave anxiety as to the future of the well. It has now settled down to a production of about 150 tons a day, water coming with it having been reduced to 33 per cent.

Some years ago some American prospectors drilled for oil at Gemsah, but abandoned the effort to obtain it. It appears that the water there was never properly shut off. The theory is that it is water from that old well which has penetrated to those we are drilling, and from which great trouble was experienced in the earlier Gemsah wells. We still hope that we shall succeed in shutting off this water completely.

I have always contended that nature does not deal in retail, and it is extremely improbable that this rich well will constitute an only one. We, therefore, look with some hope and confidence to getting ultimately a regular production from Gemsah.

We are even more hopeful, in this connection, of a supply from Hurgada, where, undoubtedly, the credit of locating the field is due to our own geologists. A well struck oil, and has for some months given a steady and sustained flow of about 25 tons a day. A large drilling programme has been marked out on this field, as we have good grounds for stating that the anticlinal is a long one.

We have voluntarily associated with us the Egyptian Government. We have given them a participation in profits. We have invited them to place a director on the board of the Anglo-Egyptian Oil Company, Ltd., and they have nominated the Hon. Hugo Baring to fill that position. We have *not* asked them for any financial assistance, although we have given them a right of pre-emption on our Egyptian production.

We have participated with three other parties in the development of Trinidad, where a certain measure of success has been attained, and where we hope, when the territory is more known to obtain a regular and large production.

From these three sources it appears to us probable that the Admiralty requirements for liquid fuel, even on a large scale, can be supplied if we could be certain of its offtake when we have manufactured it.

Look at the growth and progress of this great business. We have not had, and we have never sought, financial assistance from any government, nor have we enjoyed any subsidy or any protection, and, I regret to say, have not always had even fair play. We have kept entirely free from "trusts"—a reproach so often levelled at this Company by competitors, who have made grossly unfair use of an argument which they know to be untrue. Yet, as the balance-sheet which we have placed before you shows, a business conducted upon thoroughly sound lines is able to hold its own, and to give to its shareholders the splendid results which able management has alone secured.

In yet another sphere of our activities we have had very great success. I refer to Mexico, where we acquired an area of carefully selected and promising oilfields 20,000 acres in extent. We paid very little for these lands, because they were unproven. We thought this much better in your interests than buying developed property, because here again we had confidence in the sagacity of our geologists.

Early in the year we struck a well giving a flow which increased to 180,000 barrels a day. It took us by surprise, because we had not looked for anything approaching such a large production. With great energy our staff on the spot set themselves to work, and got the well under control. By its agency we find ourselves amongst the largest producers in Mexico.

If I may refer you to the balance-sheet of the Bataafsche Petroleum Maatschappij, you will find that the nominal capital of the Corona Company was 5,000,000 florins, but, out of that, at the close of the year, cash in hand amounted to 2,755,000 florins. We have at the present moment expended the whole of that capital in providing facilities for dealing with the oil, including earth-storage for a million barrels and steel storage to about the same extent.

We have acquired a new area of no less than 800,000 acres in Mexico, giving rights over lands far away from present fields, but which, in the opinion of our geologists, are likely to yield brilliant results.

You will forgive my repeating that the great success of your Company has been attained in every case by avoiding the watering of capital, and by opening up unproven fields for themselves all over the world. This, with the very moderate capitalisation on which practical results have been obtained, cannot fail to show a handsome return. I must warn you, nevertheless, that you cannot always hope to be successful, and that sooner or later we are quite likely to lose large sums of money in our efforts to develop unknown fields. Happily, the huge appropriations which we make for depreciation enable us to take these risks.

Before leaving the subject, I think it right to inform you that your directors have secured very large interests in a new oil world. These interests, because of their magnitude, involve a heavy outlay for survey, for geological research, and for experimental boring. I do not feel at liberty to give you any further details about these ventures at the present moment.

You have had circulated with the balance-sheet figures of our production in the principal companies with which we are associated. There is a gratifying increase of our production in Java. Our total production from our fields in Netherlands-India reached 1,503,661 tons, which is a record. Further geological investigation has much extended the known productive area of many of the fields in Borneo. Production in the oilfield of Sumatra is declining, but we have discovered a new field there. We are the largest producers of any one company in Roumania, and certainly amongst the largest in Russia.

Our deal with the Californian Oil Company was carried through. We have since added materially to the lands that we acquired. In accordance with the policy that I foreshadowed contracts for the construction of a pipeline to the seaboard have been entered into. An option on land has been acquired for the construction of a refinery, for which plans are prepared, and will be actively proceeded with. In the meantime we are not pressing for production from the field, but are rather curtailing it in so far as we can without injury to the wells, because we are convinced that when we can treat it, and market it, we shall get a better return than by selling it as crude oil. Owing to the fact that there is only one buyer, coupled with over-production of light oil, prices in California are unduly low.

The completion of these projects in California, with the provision of the necessary widespread distributing organisation, will involve the expenditure of a sum of not less than £1,500,000 sterling. We are freeing the property from debentures by paying them off. In our opinion it is very unsound to have debentures upon any oil properties, and there are none in any oil company in which we are concerned.

It is with much pleasure that I have to refer to our trade in petrol. In spite of the prognostications of alarmists, it has not been found necessary to advance the price of Shell spirit during the past year, nor—I am glad to say—do we anticipate, so far as we can see, that this step will need to be taken. Notwithstanding the enormous increase in consumption, supplies have kept pace with it. Shell spirit stands on a pinnacle alone, and the demand for it throughout the world is not only unabated but is ever increasing, because of its extraordinary purity and power.

Were I to give you figures of the cost of the great capital expenditure required for the distribution of this one article in Great Britain alone you would be astounded. I do not propose to do this, but to tell you that so many are the advantages, and so great is the economy of distributing our petrol by means of motor traction, that we have decided to scrap the whole of our horse transport as quickly as we can get the new motors delivered. They are all being manufactured in the United Kingdom. This transition will involve, in the Metropolitan area alone, an expenditure of capital not very far short of £100,000.

During the year large additions have been made to our fleet. Several of our motor ships have been delivered. I am glad to say they are giving unqualified satisfaction. British builders have at last taken up this branch in earnest. The faith that I personally have reposed in their skill is, I am sure, going to be justified in the success of the engines they have built for the independent company which I have formed, in conjunction with many friends, to encourage the growth of this industry in Great Britain. I have already seen sufficient to justify me in saying that if the results we have attained continue, the days of steam or of oil fuel for generating it are numbered, and the internal combustion engine will wipe out the steamer as certainly as that in its time superseded the old sailing ship.

On the question of oil supply, however great the demand may be, I have no doubts or misgivings whatever. The production in the world to-day of heavy oils very much exceeds the consumption. As I always predicted, let it be known that there is a regular demand and offtake, and you may rely that the supply will be forthcoming, if prices do not fall below cost of production, as they did about two years ago.

Your directors are fully alive to their responsibilities in the matter. It is in view of procuring geographically world-wide supplies that they have taken territory after territory in places the whole world over, with a view to enable them to put up such a widespread series of oil depots as to ensure a supply to users all over the globe. If I may say so, I do not think that there is any company or corporation engaged in the trade who are better able to do this than we are, although we do not possess and have never sought to obtain a monopoly.

Our production figures showed you that for the past twelve months our own production of oil approximated to 4,000,000 tons. I think there is very little doubt that during the current year we shall exceed this. Our trade in oil, however, must not be measured by our own production, for we are necessarily very large buyers in all markets, and we distribute much more than we produce. I want you to realise, therefore, that our profits are derived rather from our enormous turnover than from any high prices that we realise, and that those profits include not only those we make as producers and refiners, but those arising out of the employment of our fleet, from storage, warehousing, distribution, and sales.

With such a business to conduct, it is the deliberate policy of the Company to maintain their financial strength. You will be glad to learn that after the payment of dividend for the current year we shall have in hand a sum of £2,450,000, sufficient to see us some considerable way yet in the very large commitments we have.

The unblushing effrontery of those who still assert that we are a "trust" must be met by the statement that we have at present 12,450 registered shareholders. There are 6,917 warrants to bearer of twenty shares each, and there are 105,256 warrants of five shares each—an enormous increase in each category, I am glad to say, since last year.

As usual at these meetings, it is my privilege to give some account of the progress of the business up to the present period. I am indeed happy to say that there is no decline in the prosperity that has so far attended us. Our production is fully maintained. Prices for our products are on the whole better than at the same period of last year. The volume of our general trade again shows a gratifying increase. Your directors, therefore, fully anticipate in consequence of the conservative lines they have adopted, to come before you at our next meeting in the same cheerful frame of mind in which they greet you to-day.

I must not reveal secrets which it is better in your interests not to disclose, but I wish to lift the veil—for a single moment only—on the question of products in stock. The great competition that has existed, and still prevails, in one particular article that we make, namely, paraffin wax, induces us to inform you of the position which we are in to meet the prices of other manufacturers of this article. The stock includes 93,000 tons of wax residue, and this stands in our books at 5s. per ton!

At our last meeting so many shareholders expressed a wish that the distribution of the Company's profits should be more evenly apportioned, that your directors have decided to fall in with their views. In future we shall not pay an interim dividend in July, but one only in December, and the balance as a final dividend in July.

Promising that I shall be glad to answer any questions from shareholders, I beg to move the adoption of the report recommending the payment of a final dividend, making 35 per cent. per annum for the year 1913, and an interim dividend of 1s. per share on account of the profits of 1914.

Mr. H. W. A. Deterding, in seconding the chairman's proposal, said he hoped the shareholders would excuse his adding a few words which he thought ought not to be left unsaid.

Firstly, it had been hinted that it was not correct for British companies to have such names as "Anglo-Saxon," on the grounds that the majority of the shares were held by a Dutch company. Perhaps that criticism might be to the point if they had in any shape or form ever tried to hide the fact that it was a Dutch majority, but they had stated so publicly from the commencement, and were repeating the statement every year.

He trusted he might always expect for British companies, even where there was a Dutch majority, the same privileges as other British companies, seeing that similarly such privileges were so thoroughly and ungrudgingly accorded to British-owned Dutch companies in Holland and her Colonies. He need only instance the numerous rubber companies, or, if they preferred a more striking example, the Nederlandsche Indische Industrie en Handel Maatschappij, which before 1907 was entirely owned by the absolutely British "Shell" Transport and Trading Company, Ltd.

Secondly, it had been stated that he had, with their chairman, formed a "trust." He believed the man in the street called a trust anything big, others anything representing a combination of several companies. Naturally both definitions were wrong, but as soon as such combinations were connected with oil, everybody was inclined to think of "trusts," although it would be equally nonsense to call the P. & O. absorbing the B.I. Line or the Royal Mail Company absorbing the "Castle Line" "trusts"; or the numerous banking amalgamations now so much in evidence. All he had done, and what he hoped to continue to do, was never to refuse to make associations with other companies if such could be done on sound lines. Not only could there be nothing wrong in that, but, apart from the fact that thereby waste was prevented and efficiency increased, there was another all-important factor which should not be lost sight of. Oil, apart from the wants of admiralties, was at present required to be furnished in such enormous quantities, and failure to supply would involve such terrible consequences, that only a large company or combine, having not only one prolific field but several ones in different parts of the globe, and connected with enormous means of transport, widespread organisation, and, last but not least, enormous financial strength, could furnish what was required What he meant by this was, that although a *force majeure* clause must always be included in such contracts, still the purchaser must rely upon such *force majeure* clause scarcely ever coming into operation. They never had had to resort to putting that clause in operation. As an instance he need only refer to the loss of the steamers "Goldmouth," and "Spondilus," each carrying about 10,000 tons of petrol—without their having to curtail their deliveries to anybody in the least. As a matter of fact the trade did not even notice that those enormous cargoes had suddenly disappeared.

On due consideration it was bound to strike every business man that the larger the commitments the larger, that was to say in disproportion, must be the reserves. In other words, although a 5,000 tons commitment of petrol or liquid fuel did not call for any reserve, 20,000 tons would call for 5,000 tons; but 100,000 tons commitment called for 50,000 tons reserve, because if such a large supply suddenly failed, where could it all suddenly be secured in ordinary times in the open market?

As regarded the regrettable statement that with them courtesy was dependent on price, he might say that courtesy had always been shown to him in England in such a high degree by everybody, and especially by Government Departments—and especially in the Admiralty Department all the officials had been so exceedingly kind to him—that the statement as he read it must be some hideous mistake. It condemned itself, and it could not have been meant as it read. In heated controversies, which need not have taken place at all, the tongue was sometimes even faster than the mind.

There being no questions asked, the resolution was put and carried unanimously.

On the proposition of the chairman, seconded by Mr. Deterding, the dividends already announced in the REVIEW were unanimously agreed to.

Sir Reginald MacLeod, K.C.B., in proposing the re-election of the retiring directors—Sir Marcus Samuel, Mr. W. H. Samuel, Mr. R. J. Black, and Mr. R. Waley Cohen, said: It is an important resolution always, but was especially so that day, as the first director on the list who retired was Sir Marcus Samuel. He could only account for his being asked to discharge that duty by the fact that he was the junior member of the board. Sixteen years ago the company was formed by Sir Marcus Samuel, who drew together under the name of the "Shell" Transport and Trading Company, the results of previous efforts extending over several years. The company had flourished exceedingly, and had now become one of the first—if not absolutely the first—and most important commercial companies in the United Kingdom. He did not know if there were any other company of which it could be said that the capital was valued in the markets to-day at an amount exceeding £22,000,000, which had a reserve of close upon £4,000,000, and which was about to distribute, next week, over £1,000,000 as a final dividend. That was, at all events, a remarkable achievement in sixteen years, and one of which the chairman had every reason to be proud. He desired to refer to the changes which had occurred since Sir Marcus Samuel last came before them for re-election—four years ago. There had been the great addition to its interests which the company had obtained in Russia, not only in production, but also in distribution, and in Roumania, Mexico, and California; and although we sometimes heard comments about the company's having foreign interests, he could not but think that the more they drew to the country the wealth and the profits derived from business in foreign lands the greater was the service rendered to the State and especially to the shareholders. But it was not primarily the extension of the business in foreign countries to which he desired to refer. Sir Marcus Samuel had always held with conviction—long before it became matter of general and public belief—that the fuel of the future was to be oil; and if there was in his mind any intention beyond that of increasing the financial resources and the profits of the shareholders and of the company in extending the fields over which he had influence and control in British territory, or in territory under British influence, what prevailed in his mind was—and he spoke of what he knew—because he had the honour of being associated with him in two of those enterprises, in their direct management—the hope and belief that by his action he would be the means of acquiring, under the British flag and under British influence a vast supply of liquid fuel which would become necessary, and which had now become necessary, for the marine supply of Great Britain, naval and mercantile. Sir Marcus Samuel had again shown singular prescience in that matter, for he recently established the Flower Company, which was designed to test and prove to the world whether or not internal-combustion engines were capable of driving large ships ultimately at high speed. If that were proved it would cause an enormous revolution in the development of trade, and he was sure it had been satisfactory to them to hear that the first of that fleet has made a successful cruise so far on her way to the East as Port Said. In a great trading concern like theirs, the first thought had necessarily to be for the welfare of the shareholders—the prosperity of the company from a financial point of view; but there were other considerations behind that, and he felt that, under Sir Marcus Samuel's guidance, those considerations had never been lost sight of. The undertaking was now so vast that those actually engaged in the management of the company's affairs enjoyed no sinecure, and he often marvelled at the power displayed by them in the discharge of their onerous duties. He was sure all his colleagues would agree with him in saying that they are proud to serve under Sir Marcus Samuel as chairman, not only because he was a man of the highest business capacity, but because they felt that he was a man who brought to business high ideals—that he was a statesman as well as a man of business. For those reasons he had peculiar pleasure in proposing the re-election of those gentlemen, and he hoped the shareholders would carry it in a manner to show to Sir Marcus Samuel and his colleagues how much they appreciated their labours, and how glad they were again to place their interests in his and their hands.

Mr. A. V. D. Best briefly seconded the motion.

Sir Alfred J. Newton, Bart., in supporting, said he thought that their meeting was singularly interesting on that occasion. The shareholders had heard from the chairman a most statesmanlike introduction to his speech on the affairs of the company—a speech to which they had listened with the greatest attention, and in the views of which he believed they all cordially agreed. Sir Marcus Samuel some years ago was the pioneer in drawing the attention of the Admiralty to the necessity of providing liquid fuel for the fleet. That advice, however, fell on deaf ears for the moment, but they now saw that the Admiralty were relying on liquid fuel for the fleet in the future. He thought it was very desirable that the company should remain on the most friendly terms with the Admiralty, despite any little snub the latter might have attempted to administer to them. He had no doubt that Sir Marcus Samuel, in a statesmanlike manner, would endeavour to bridge over any little ill-feeling that might exist at the present moment, and that the Admiralty would accept the company's assistance. He congratulated the directors on the part of the shareholders, on the magnificent balance sheet and the splendid results they had put before them on that occasion.

The resolution was carried unanimously, and was briefly acknowledged by the chairman.

Mr. James N. Graham, in proposing a cordial vote of thanks to the chairman and the directors, said he thought they all recognised how much they were indebted to Sir Marcus Samuel and his colleagues for the present prosperity of the company. The chairman had had many difficulties to encounter, but he had succeeded in overcoming them, and a magnificent business, fully organised and equipped, had been built up. Sir Marcus Samuel had shown indomitable pluck in the measures he had taken, in the face of many difficulties, for laying the foundation of the company's prosperity, but he now had the gratification of seeing the company occupying the position of one of the most notable commercial enterprises of the day.

Sir A. J. Newton seconded the motion, which was carried unanimously, and

Sir Marcus, in replying, said: Ladies and gentlemen, I thank you on my own behalf for the very kind remarks which have been made, and also on the part of my colleagues. No man has ever been more fortunate than I in those serving with him for the energy and loyalty they have displayed. It is always one of the most pleasant duties I have to perform to return thanks on behalf of the directors. We have a great genius in Mr. Deterding, who is spending his life in his efforts to promote the welfare of the many companies with which we are associated and of which he is the guiding light. It is a terrible position, I think, for any man to know that he is responsible, as has been said here, for £22,000,000; but with the Royal Dutch and the "Shell" Companies together, without counting the numerous companies for whose welfare we are responsible, the amount is, in fact, £65,000,000, and in my opinion Mr. Deterding is a worthy manager and director of such a vast concern. It would be ungenerous, too, if we did not say a word of praise for those who have been associated with him. We much regret the retirement of Dr. Cohen Stuart and Mr. Loudon from any active management in affairs, but they have assisted us, and I am glad to know that they will remain with us in future as directors of the Bataafsche Petroleum Maatschappij. Then we come to a gentleman who has discharged a very great part in the work—I refer to Mr. Waley Cohen. He is still a comparatively young man, and I hope for his own sake and the sake of those dear to him, as well as for our sake, that he may be spared for very many years to carry on the great traditions that he knows have prevailed in this business. On behalf of my colleagues and myself I thank you very sincerely for your vote of thanks.

This closed the meeting.

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# THE BRITISH GOVERNMENT AND OIL FUEL.

## IMPORTANT SPEECHES BY REPRESENTATIVES OF THE OIL TRADE.

The question of the attitude of the British Government to the agreement with the Anglo-Persian Oil Company, Ltd., which was debated in Committee in the House of Commons on Wednesday week, continues to be a much-talked-of subject in oil circles, and though the motion for the sinking of £2,200,000 of public funds in the Persian fields was carried, there is a strong feeling that the Government has made a grave mistake.

In last week's issue of the Review we published a lengthy report of the debate, though it was impossible on that occasion to give anything approaching a complete account of the speeches of various Members of Parliament who ventilated their opinions to the House. We therefore now publish a more comprehensive report of the speeches of several gentlemen interested in the oil trade.

Sir Fortescue Flannery said: I have risen chiefly to compliment my hon. friend the member for Chelmsford (Mr. Pretyman) for the chivalry displayed in his speech. He was a member of the Board of Admiralty at the time this contract was first originated, and he has taken upon himself responsibility in regard to the position in which we find ourselves to-day. What might have been wise nine years ago is not necessarily wise to-day. There has been no sphere of development in connection with science or manufacture where the progress has been more rapid, the changes more complete, than in the case of the use of oil as a means of power and of marine propulsion. That being so, it follows that with the development and discovery of new sources of supply, the situation is so changed that what was considered right nine or ten years ago may be quite different to-day. The changes to which I refer are mainly by reason of the discovery of new fields of supply, and those are so promising that they might be placed in competition, not for the purpose of subsidy and Government shareholding as in this case, but as other means of securing continuity of supply. For instance, the Foreign Secretary was challenged from both sides as to what he would say with regard to Egypt. With that skill on which the hon. member for East Mayo (Mr. John Dillon) complimented him, he easily escaped from the dilemma in which he had been put. According to this Blue-book, the production, as reported by Admiral Slade, amounts to 800 tons per day, whereas I believe I am speaking with good authority when I say that the production in Egypt has been recently as much as 2,000 and over 2,000 tons per day, which is an extraordinary development. Why then, even now at the eleventh hour, should not the situation be reviewed?

The First Lord spoke for an hour with that lucidity and power of graphic description and explanation which has always characterised his utterances on naval affairs. I deeply regret that the latter portion of his speech should have been spoiled by the squalid personalities which he thought right to include. I wish to pass away from those personalities, and to say that the difficulties which the right hon. gentleman may have had in his bargaining ought not to embitter him in the way they appear to have embittered him. He has still to do business with all those firms to whom he has referred, and who, I do not doubt, will be tempted to resent what he has said about them. Because the right hon. gentleman has a grievance against some people in the oil trade is not a good reason for rejecting any possibility of dealing with oil in Egypt. If Egypt fulfils the conditions which the First Lord has laid down, then it is right, and is his duty, to consider how far he may adapt Egypt to Admiralty requirements. The conditions for a suitable oilfield for the British Admiralty are laid down by the right hon. gentleman as follows:—

> "The oil must be drawn, so far as possible, from sources under British control or British influence, and along those sea or ocean routes which the Navy can most easily and surely protect."

Who would suggest that the interior of Persia, at the top of the Persian Gulf, is a sea route which could be most easily and surely protected? If the right hon. gentleman ranged over the whole world to find a spot oil producing most difficult to protect by the Navy or by a military expedition, he could not have placed his finger on one more difficult than this one in Persia. Situated as it is between Turkey and Russia, it is in the very zone of political complications, and not one word of the speech of the Foreign Secretary, I think, was able to remove the reasonable doubts on that point from the minds of the Committee, and which has been expressed very fully on both sides. If it be the case that Egypt has developed capacity for oil production since this contract was originated by my hon. friend, and developed by the present Board of Admiralty, then, surely, it is worth while making some effort to save the country from a situation which I agree with the hon. member for East Mayo, and probably it is the only point on which I do agree with him, is fraught with danger to the country by possible complications. If you have an investment by the Government of 2¼ millions, and it is bound to increase, you cannot with proper natural self-respect permit circumstances to happen in that particular district which you might allow if you had not made that investment. It is up to the country, as the Americans would say, to see properly protected that which they have fathered and adopted. The Government could not, in the future, treat with the same indifference difficulties which might arise, and which those who have the best knowledge of Persia believe will arise, as if this investment had not been made. It is, therefore, not only a question of the risk of 2¼ millions of money which may never be productive, but it is also the fact that we are committing ourselves more deeply to a portion of the world which is dangerous and increasing our responsibilities and the burden upon us there.

For my part, I regard this contract as full of danger to the country in possible political complications in the future. I regard it as wrong from an economic standpoint, in so far that it is an investment of public funds for giving encouragement to the employment of the natives of a foreign country. The hon. member for Leicester (Mr. Ramsay Macdonald) in the course of his speech, in which the right hon. gentleman the First Lord made an interjection, asked, Why do you not make this experiment or give this subsidy to the coal industry at home? He might have added also the shale industry. To a foreign industry and to the development of foreign employment 2¼ millions are given, and to the development of home industry a prize for a laboratory experiment. I think that is what the record is. If the right hon. gentleman would take into full cognisance the Scottish shale production, and in Dorsetshire and elsewhere, and if he would develop the production from coal of oil suitable for internal-combustion engines, and if he would invest money with some British producer or some British owner, in that way he would, in my opinion, be doing more good for employment at home than he is doing by giving employment to those people in this debatable territory. If there be a division I, for one, unhappily for myself, will go into the opposite lobby from that of my colleague the hon. member for Chelmsford, but I will do so with the utmost confidence that I shall be voting against a proposal which is wrong in principle, which is dangerous to the future peace of the country, and which will not be able, in the end, to effect that continuity of supply which is so vital a necessity to the Navy, and which is the object, not only of the First Lord, but of every patriotic, intelligent member of this House.

Mr. Samuel Samuel.—I did not want to intervene in this debate at all, because I felt it would be said that I was interested in this oil question. I have been connected with the oil industry for forty years, and I should not have attempted to address the House had it not been for the very unjustifiable attack that the First Lord of the Admiralty made upon my company and that of my brother, Sir Marcus Samuel. I claim that we have rendered—especially Sir Marcus—the very greatest service to the country and to the Admiralty in the introduction of liquid fuel for use in marine engines. We were the pioneers of that commodity as liquid fuel, and it was on board our steamers that the Admiralty, nearly twenty-five years ago, made their first experiments. About twenty or eighteen years ago engineering officers were making trips on board the Shell Company's steamers from Hong Kong to this country to study the use of liquid fuel for the Navy. There were many engineering officers who took trips in our steamers between this country and the Black Sea, and I claim that we have never received any recognition. On the contrary, we have always received the greatest hostility from the British Government in spite of the services we have rendered. I am not going to criticise the contracts, and I am not going to criticise the oilfields. I believe, that so far as they have been proved, they are good oilfields, but I do protest most strongly on behalf of one of the greatest British commercial industrial companies, that the attacks that have been made are wholly unjustifiable. I represent no less than 12,000 registered British shareholders in the Shell Transport and Trading Company, whose names and addresses are to be seen at Somerset House. There are some foreigners—about 500, I should think—and there are probably a great many other British shareholders we know nothing about, because they have converted their scrip into bearer warrants. I protest, on their behalf, against the attack on the directors of the Shell Company, and I say we have not in any way done anything to justify the First Lord in accusing us of having exploited the Admiralty, or the country, or of having neglected the interests of this country. I go further. I am not at liberty to mention anything about the contracts. The Admiralty have chosen to call them secret, and we are bound to be ruled by their decision, but I have no hesitation in saying that, so far as my directors are concerned, they would not object in any shape or form to the Admiralty publishing the prices that my companies have charged. I contend, that if we are accused of having exploited the Government, and the nation through the Government, we are entitled to ask the Government to justify the accusation. We contend, and I am certain of my facts, that for what the Government have had from us they have paid no dearer, but in many instances cheaper, than for the supplies they have been able to secure from other countries. We have deliberately, in late years, gone in for the development of liquid fuel, because we know perfectly well it would be necessary for the Navy of this country. We called the attention of the Admiralty, at the time of the China-Japanese War, to the use that was being made of liquid fuel, and that was long before they ever contemplated adopting it for British ships. We knew perfectly well it would have to come for naval purposes, because the advantages were so overwhelmingly in its favour. It was on the assumption that that demand would be brought about that we went in for the development of the resources of the world. The hon. member for Chelmsford (Mr. Pretyman) has told us that it was in 1903 that the Government of the day first contemplated the absorption of the Anglo-Persian Oil Company. I am sorry to have to refer to matters which I should have liked to have avoided, but, in consequence of the attacks which have been made in this House by the First Lord, I feel compelled to bring back to the memory of those who were in office then, and also to bring to the attention of those who are in office now, certain facts—I am making no attack upon anybody ; I believe that both the past and the present Government have been sincere in their action—but I am also convinced that they have been grossly and purposely deceived, and that they have adopted a course which, had they taken the trouble to ascertain the facts, they would never have entered upon.

If we go back to 1903, at which time the hon. member for Chelmsford tells us he contemplated the absorption of the Anglo-Persian Oil Company, we find there was raging a war of rates in the East at that time, and when the hon. member says he took a certain course for the purpose of crushing monopolies, I say, and I say it without fear of contradiction, that when the facts are known it will be found there is no such thing as a monopoly in the oil trade in any part of the world. I say absolutely that nobody can prove there is not an open market, but that dozens of companies have not the means at their disposal to sufficiently develop their resources. I go back to 1903 at the time when there were no less than eight oil companies competing in the Indian markets for the trade. They were the Standard Oil Company, the Shell Transport and Trading Company, the Royal Dutch Company, Maritaschaef & Co., Société de Naphte, Caspienne and de la Mer Noir, Siderides & Co., Richner & Co., and the Burma Oil Company. These companies were all competing with each other, and the prices had been reduced to ruinous figures. The Burma Oil Company went to the Indian Government, and led it to believe that there was a combination between the Standard Oil Company and the Shell Company to crush them out of existence. The Indian Government of the day, believing that this state of affairs existed, went to the assistance of the Burma Oil Company and put a duty on the importation of petroleum into British India, which created the first monopoly that was created in the oil trade. I am a Protectionist myself—a strong Tariff Reformer—and I admire the Government of India for having protected that industry, and thereby being the means of creating a strong and powerful company.

The Deputy-Chairman.—I am not desirous of interrupting the hon. member, but I understood he was giving a more or less personal explanation. I think he is going rather far from the subject before the Committee.

Mr. Samuel Samuel.—I must apologise, but I thought as the beginning of this business had been traced back to 1903, and as an attempt had been made to show there was then monopolies or attempted monopolies, I was justified in showing that no such thing existed.

The Deputy-Chairman.—There is no objection to general references, but the hon. gentleman is going rather deeply into matters which deal with a totally different question.

Mr. Samuel Samuel.—I will leave that subject. I simply desire to repudiate, in the most formal manner, the suggestion that at the present time there is any monopoly in the oil trade. I wish also to say that so far as the companies I represent are concerned, we have no objection whatever to the Admiralty publishing the prices which they pay us, because it will prove that they are able to obtain their supplies at equal prices and on terms equally advantageous to the taxpayers, as they are about to do under the contract with the Anglo-Persian Oil Company, the terms of which they, of course, refuse to disclose. As regards supplies, the Admiralty are evidently unaware of the developments which have taken place in Egypt. They are probably unaware that the Anglo-Egyptian Company, in which the Egyptian Government are shareholders and upon the board of directors of which the Egyptian Government have a representative in the person of the Hon. Hugo Baring, is thoroughly British, and is in a position, if it had been approached by the Admiralty, to have given larger supplies than have been secured by the contract with the Anglo-Persian Company now under consideration. There are also a large number of British companies—in Roumania and Trinidad—and there are hundreds of British companies in other parts of the world who, if the Government were to ask them to submit tenders, would be able to give them their supply equally as well, but in a much better geographical position in the event of this country being engaged in hostilities. I do not intend to keep the Committee any longer, as I am not allowed to deal with the question into which I wanted to go.

Mr. Watson Rutherford (Director of the Roumanian Consolidated Oilfields, Ltd., the Baku Russian Petroleum Company, and other important companies).—I make no apology to the Committee for taking part in this very important debate, because it happens that for a considerable number of years I have been giving some of my life to the study of this question. I come here to this debate without any interest, direct or indirect, with regard to the particular matter before the Committee. We are asked to-day to pass a Money Resolution which will authorise the Government to acquire a controlling interest in the Anglo-Persian Oil Company, Ltd. I think it is a very great pity that the First Lord of the Admiralty in the very interesting speech in which he introduced the Resolution should have gone out of his way to attack the Shell Company, or Sir Marcus Samuel, or the hon. member for Wandsworth (Mr. Samuel Samuel). I listened to the manly speech of the hon. member for Wandsworth with very great sympathy, because it is a very unfortunate thing, when a matter of business like this comes before the Committee that any Minister of the Crown should consider it his duty, or that it should come in any way within the purview of the motion, to deliver an attack upon a private company, much less any company with which any member of the House is associated. This attack which we have heard had nothing on earth to do with the question before the Committee, and I was at first at a loss to understand why it had been made, but as I listened to the right hon. gentleman I found the reason why he introduced this attack into an otherwise excellent speech was that he knew in advance, what has been proved during the last two hours, that he would have very great difficulty with some of his own followers in getting them to support the proposition he was bringing forward, and that the best course of action to get them to support it was to raise the question of monopoly and to do a little bit of Jew-baiting. In order to get the Labour members to support him he spoke on the same lines. I am very sorry these elements were introduced in this debate, for they really have nothing to do with the actual question before the Committee.

In considering the merits of the question itself, I think that as business men we have got to put one proposition to ourselves, and it is this : Has liquid fuel now become a necessary for the purposes of the Fleet ? I think the House of Commons and the country generally have already come to the conclusion that it is a necessary. A large number of reasons have been given at various times by Committees of the House on this subject. I think it is only necessary to quote very shortly two of them which really dispose of that part of the subject. One report states that oil fuel increases the effective power of war vessels by at least 50 per cent. That is one reason why oil fuel to-day has become a necessary. The other, and perhaps even most important matter, is that it can be put on board a vessel at sea, whereas coaling at sea, as everybody knows, is practically impossible. The result is that a war vessel engaged, we will say, in defending one of the trade routes of this country has not got to return to port for the purpose of coaling, but can be recharged with fuel while doing her duty in the position in which she is placed. That is a most important matter. What is the position at which we have arrived in connection with the evolution of this question ? We have to-day over 100 vessels in the Fleet using oil fuel, and in addition to the utilising of oil for the purposes of steam there is another, and even more important, factor lurking behind, and that is the evolution of the internal-combustion engine of the Diesel type by which the fuel produces power directly without the intervention of steam. This evolution has made enormous progress. Large-sized boats are being propelled in this manner, and there is no doubt that within the very near future oil fuel, which to-day has become a necessary, will become even more so.

The next question with which we are faced in considering this important resolution is, How can this necessary be secured in times of peace and in time of war ? Although I agree in the result, I differ entirely from the speech of the First Lord with regard to the reasons which have led up to the present position. In times of peace the answer to the question, "How are we to get oil fuel ?" was no later than two years ago a perfectly simple one, but to-day it is far otherwise, and that difference arises from the new uses which have been discovered to which is applied, not petroleum, but liquid fuel, which consists of the residual oils from the refineries engaged in refining petroleum. A suggestion was made by the right hon. gentleman in his speech conveying with it a particularly nasty insinuation against the "Shell" and other companies. The suggestion was that the difficulty of getting oil to-day at a low price was caused by the machinations of some trust or ring. The right hon. gentleman has said that an open market is an open mockery in this respect. The hon. member for Leicester repeated this unfounded charge. The truth is that until quite lately there was no market whatever for residual oils outside the country where, at the refineries, they were being produced. The markets were in petrol or benzine, and also lamp oil, and to a small extent in lubricating oil, but there was no market whatever for export for mere residual oil for liquid fuel. That market has almost entirely arisen during the last two or three years, in consequence of these new uses which have been found for this oil.

A very cursory glance at the question of the amount of production all over the world of residual oil is of interest. The total world's production of crude petroleum last year, 1913, was just over 50,000,000 tons. I have got here details showing where that petroleum was produced. Questions have arisen as to the supplies in the British Empire, and where this petroleum can be got, and the figures which I have here answer the whole of these questions. But my point at the moment is simply that the total world's production last year was 50,000,000 tons, as compared with a total production of 28,000,000 tons in 1906. To that figure requires to be added, for the purpose of our calculation to-night, the production of oil from shale, which is going on in Scotland. The total output of the five Scottish companies in 1911 was 3,116,000 tons of shale. The average yield per ton was twenty-five gallons of oil. This quantity of oil would not, of course, be a great factor in the problem, but no doubt—and this is what I would like to impress on the right hon. gentleman—the mining and the distillation of shale could be greatly increased, and also extended to England, where there are even larger and richer beds of shale waiting for development than in Scotland, and I, for one, would look forward with great satisfaction to increased efforts on the part of the Admiralty to develop the production of liquid fuel from the sources which exist in the United Kingdom itself. On the other hand, when we are considering the shortage of supply of this article, we have got to take into account the fact that out of 50,000,000 tons of petroleum, more than half is made into benzine, into the petrol that runs all our motor cars, the oil that is burnt in the millions of lamps that are lit all over the world, all the lubricating oil for machinery, the oil that is used in gasworks, and the oil for varnishes and paints, and that only about 20,000,000 tons of residual oil are left for the purpose of supplying the liquid fuel requirements of the whole world. The total Scottish production is only 300,000 tons of oil from all the shale, and therefore that is hardly a factor in these figures. Twenty-five million tons spread over a year would give half a million tons a week. A large proportion of it is forestalled for the consumption of railways in oil-producing countries and a variety of other industries, and the proportion remaining available for sale to the fleets of those countries which have just wakened up to the use of oil fuel, and want to get that oil fuel for their purposes, is inadequate for the navies of the world, without making any allowance whatever for the requirements of the mercantile marine. The problem, therefore, of securing a supply of what is necessary is already very difficult in time of peace and will become much more difficult in the near future. It has nothing whatever to do with the Shell Company or the Standard Oil Company, or any other evil magnate which is designing to obtain a monopoly and raise prices. Those companies to which the right hon. gentleman has referred never meet, except in conflict and for putting the prices down in competition with one another. I am speaking now as a director of the largest purely British oil company which there is in existence, and I know something about the subject and the prices, and I have no hesitation in telling the right hon. gentleman that the statements in the Press in this respect and his own speech are based on prejudice, instead of a knowledge of the actual facts, and on an entire ignorance of the true position of this matter, which is that there is a world shortage of an article which the world has only lately begun to see is required for certain special purposes. That is the reason why prices have gone up.

I will prove my point. It is very important, because it will show the right hon. gentleman that he has been proceeding upon a misconception of this subject. The chief producer in Europe is Roumania. The difficulty of the problem which we have to study is illustrated by the Roumanian experience of the last two years. The Roumanian railways belong to the State, and they use partly liquid fuel and partly Cardiff coal, and they have had prepared for the last five or six years a carefully analysed examination of the actual cost of running the railways, comparing the calorific value per ton of the residual oil with that of the Cardiff coal. I will not give the figures because they would not be understood by the Committee, and they would take some time to give. All I want to point out is, that the low price of petroleum residues down to 1912 caused a large accumulation of stocks in Roumania. One of the largest companies in Roumania made a contract with the Admiralty—I take the figures from the "Roumanian Official Gazette," with regard to petroleum—for a large quantity of liquid fuel at sixteen francs a ton, in Roumania. The Committee will hardly believe me, when I say that within two years, that material is to-day worth sixty-six francs—an increase from sixteen francs to sixty-six francs. That is an increase in price which has to be accounted for, and it causes anyone seriously to think when they hear these figures. Even at the enhanced price of to-day, I suppose that the residue could hardly be bought in Roumania. Variations in price like this show what a complex problem it is that we have to deal with. I will only give a further illustration of this point. France, which had no petroleum of its own in 1893, imported 215,000 tons of crude oil and 44,000 tons of refined. I can give the figures from 1904, but I will only give them for 1912, when they were 174,000 tons of crude oil and 433,000 tons of refined.

What does that mean? In that short period from 1893 down to date the whole French importation of petroleum has completely altered its character. Formerly, they imported 83 per cent. of crude and 17 per cent. of refined; and last year they imported 28 per cent. of crude and 72 per cent. of refined, thus making an entirely *volte face* of the whole position. These are the things, these are the extraordinary points in connection with the petroleum trade, and these are the points which a Government Department which is becoming a large customer, has got to face. I have here, also, the exact figures with regard to Germany, but I will not detain the House by quoting them. I would point out, however, that Germany has on its border, Galicia, an oil-producing country, and it has been asked why Germany does not get her oil from Galicia, and why did she get 70 per cent. of it from the United States of America? The answer is that the total output in 1912 in Galicia was 1,187,000 tons, but in 1913 there were 123,000 tons less, showing that the total production in Galicia is most seriously falling off. Under these circumstances, what do I suggest is the problem which the Admiralty are called upon to face, and how can they meet it? It is this: First of all, I may be allowed to point out that I do not treat this as a political matter, because I am going to vote with the right hon. gentleman and support his proposition. I am looking at this subject as a business man. In the first place, I think it is the duty of the Admiralty to do all in their power to foster the production of suitable liquid fuel in Great Britain. The right hon. gentleman has told us something about it, but in the interests of the United Kingdom there are many of us who would like to hear a good deal more on that particular aspect of the subject. Secondly, we ought to have, and I think the right hon. gentleman has indicated that steps are being taken to provide it, storage in suitable ports and of sufficient capacity to last our fleet during the probable continuance of a war. If a war were raging, it would be absurd as everybody in this Committee knows, to try and bring petroleum from Persia if a war were raging at the time. There should be suitable tankage accommodation, and the tankage costs about twelve shillings a ton to erect. I can only give the right hon. gentleman the figures that I have obtained myself, and if he is not satisfied with the figures upon which I have put the cost of 5,000 tons of storage, I cannot help it.

Mr. Churchill.—Will the hon. gentleman let me have the figures and the details?

Mr. Watson Rutherford.—Yes. You can erect a 5,000-ton tank for about £3,200 or £3,300. I should like to see reservoirs holding some millions of tons erected in suitable places, and stocked with the best oil, get it where you will. There is a third very interesting point, namely, about oil within the Empire. There are numerous places where oil is being got to-day within the Empire, and there are many more places where it could be got with a little research and money being spent upon it. I should like, next to the development of the supply in the United Kingdom, to see some real and *bona-fide* effort on the part of the Government to develop the production of oil within the Empire, particularly in Canada, Newfoundland, Trinidad, Barbadoes, and a variety of other places. Fourthly, I think it was wise and proper, at this stage of the evolution of this complex and difficult question, to acquire a controlling hand in reference to crude petroleum. It is not enough to say we are going to be squeezed by cosmopolitan financiers and by trusts. The real fact is that the squeezing is the consequence of the enormous demand and the unelasticity of the supply. The demand has arisen. You have only to look at the streets of London to see how horses have disappeared, and how petroleum is doing their work. Motor boats are now being driven through the water by petroleum, and to-day petroleum is doing not a little towards the conquest of the air.

All these things have told upon this business within the last two or three years, and the amount of oil that is produced, as I have shown, has not been increased in any way in proportion That is the reason why the right hon. gentleman finds himself so short of oil fuel that he cannot properly exercise portions of his Fleet, and that he has cut down the amount of sea service of this, that, and the other portion of the Fleet, which portions are deprived of proper exercise. It is perfectly futile for him and his department to imagine that it is in consequence of cosmopolitan finance—it is in consequence of the inevitable law of supply and demand. Still I am in favour of the proposal before us to-day, and I am in favour of the report that has been embodied in the Blue-book. I have reason to believe that Mr. Blundstone, Professor Cadman, and Mr. Pascoe, whose names are appended to the report, are reliable gentlemen of the highest possible reputation and expert knowledge. I do not think they would have put their names to that report if they were not satisfied that it was correct. I do not come to this Committee with any prejudices in favour of any proposition brought forward by the Government, but on this occasion I feel bound as a business man, and I hope a patriotic man, to support the proposal which the Government is putting before us.

After other criticism the motion for authorising the issue of the sum of £2,200,000 was agreed to as already announced.

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**Grosny Production during April.**—The production of petroleum on the Grosny old areas during April amounted to 7,750,000 poods of baled oil and 100,000 poods of spouted oil.

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# HOME AND FOREIGN MARKET INTELLIGENCE.

## LONDON OIL MARKET.

Supplied by Messrs. BENJAMIN & CO., 61, St. Mary Axe, E.C.

June 26th, 1914.

There are no alterations to report in the prices of Refined Petroleum, which are as follows :—Russian, 7d. ; American, 7¼d.; American Water White, 8¼d.; Roumanian, 6¾d. ; Galician, 6¾d.

### LUBRICATING OILS.

The official quotations are for :—

No. 1 Russian, £11. 15s. 0d.
No. 2 Russian, £10. 10s. 0d.
American pale, from £9. 0s. 0d.
American dark, from £10. 5s. 0d.
American filtered cylinder, from £12. 12s. 6d.

### FUEL OIL.

The current quotation is 65s. per ton, in bulk, ex wharf.

### GREASE-MAKING OIL

is officially quoted 70s. per ton, in bulk, ex wharf.

### GAS OIL.

The market price is 3d. per gallon, in bulk, ex wharf.

### MOTOR SPIRIT.

The retail prices in London are 1s. 9d. per gallon for the best quality, and 1s. 7d. per gallon for the second quality.

### TURPENTINE.

American spot is quoted 33s. 7½d. ; July/August, 33s. 9d. ; September/December, 34s. 6d. ; January/April, 35s. 6d.

## LIVERPOOL.

June 25th.

Petroleum oils have a steady sale, and lower currencies are asked for Refined, 8¼d. being now quoted for Russian, and 8d. to 9d. per gallon for American.

Petroleum spirit moves off fairly well.

## AMERICA.

NEW YORK, June 25th.

Refined, in cases, is still quoted at 11·00 ; Standard White, 8·50 ; Credit balances, 1·75.

PHILADELPHIA, June 25th.

Standard White is quoted at 8·50.

## RUSSIA.

BAKU, June 25th.

The market is abnormal owing to the general strike at the field. The latest quotations are :—Crude oil, 43¼–43¾ copecs per pood spot. Kerosene, 58–58½ copecs. Residuals, 48–41¾ copecs.

## ROUMANIA.

June 23rd.

The export of petroleum is for the moment very restricted. The latest prices are :—

| | | Francs. |
|---|---|---|
| Crude oil from different fields, including pipe-line charges, per 100 kgs. | Bushtenari | 8·30–8·40 |
| " " " | Moreni ... | 7·20–7·50 |
| " " " | Tzintea ... | 5·80–6·50 |
| " " " | Policiori... | 6·25–6·50 |
| " " " | Bordeni ... | 8·75–9·00 |
| " " " | Bana ... | 9·00–9·50 |
| " " " | Baicoi ... | 7·50–8·50 |
| Paraffin ... ... ... ... ... | | 120 |

PRICES FOR EXPORT.

| | |
|---|---|
| Refined oil, f.o.b., per 100 kgs. ... ... | 9·25– 9·50 |
| Benzine, sp. gr. 0·710–0·715, f.o.b. ... ... | 28·00–29·00 |
| " sp. gr. 0·715–0·720, f.o.b. ... ... | 26·00–27.00 |
| " sp. gr. 0·730–0·740, f.o.b. ... ... | 19·00–20·00 |
| " sp. gr. 0·740–0·755, f.o.b. ... ... | 18·00–18·50 |
| Residuals, f.o.b. Constanza ... ... ... | 7·00– 7·50 |
| Gas Oil... ... .. ... ... ... | 8·00 |

## GERMANY.

HAMBURG, June 25th.

The petroleum prices remain unchanged. The offer for benzine begins to be lively. American and Galician, 8·85 ; Russian and Roumanian, 8·85. Motor spirit, first quality, M. 46·75 for 0·690–0·710 and M. 39·75 for 0·710–0·730 ; second quality (0·750–0·770 gravity), 32·00–33·00.

## AUSTRIA.

June 23rd.

Crude oil is quoted 6·70 kronen spot. Kerosene, 30·50 kronen at Oderberg. Benzine, 6·90/7·00, 38 kronen at Oderberg. Motor spirit, 29–30. Gas oil, 7·00 kronen at Oderberg. Paraffin, on the basis 50/52, c.i.f. Hamburg, M. 38·00.

◆

## THE TIN PLATE MARKET.

Messrs. Norton, Owen & Co., of 4, Bishopsgate, E.C., report, under date June 25th, as under :—

The market is still quiet and prices of oil sizes are unchanged at last week's rates as below. There is, however, rather more enquiry in anticipation of the annual holiday throughout the trade from July 31st to August 10th.

| | | | | | |
|---|---|---|---|---|---|
| 1c | 18¾×14 | 124 sheets | 110 lbs. | ... | 12/7½ per box. |
| 1c | 20 ×10 | 225 " | 156 " | ... | 17/6 " |

F.o.b. Swansea. Tin lining and iron hooping extra

◆

## IMPORTS OF PETROLEUM PRODUCTS INTO FRANCE.

THE imports of petroleum products into France during the first quarter of 1914 have amounted to 154,889 tons, as against 181,406 tons imported during the corresponding period last year. The imports of the various products were as follows :—

| From | Crude Oil. Tons. | Kerosene. Tons. | Benzine. Tons. | Other products. Tons. |
|---|---|---|---|---|
| Austria ... ... | — | 10,232 | 1,875 | — |
| Russia ... ... | 3,914 | 21 | 14,100 | 16,958 |
| Roumania ... ... | 3,918 | 1,215 | 14,400 | — |
| United States ... | 14,607 | 45.640 | 6,225 | 17,848 |
| Other countries ... | — | 556 | 215 | 3,165 |
| Total ... ... | 22,439 | 57,664 | 36,815 | 37,971 |
| Total for first quarter, 1913 | 46,878 | 50,408 | 44,400 | 39,720 |

Besides the above products, there were imported 2,119 tons of paraffin, 35 tons of vaseline, 14,549 tons of asphalt, and 200 tons of ozokerite.

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Canal Works,
**Patricroft, MANCHESTER.**
CONTRACTOR TO H.M. GOVERNMENT.

# Imports of Petroleum Products into the United Kingdom.

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FOR THE WEEK ENDED JUNE 22ND, 1914 (excluding any Imports which may not be disclosed)—

| DATE. | PORT AND IMPORTERS. | DESCRIPTION. | NO. OF GALS. | PORT WHENCE. |
|---|---|---|---|---|
| June. | LONDON— | | | |
| 27/5 | Anglo-Saxon Petroleum Co. | Crude | 94,040 | Tampico |
| 27/5 | ,, ,, | Gas | 3,690 | Port Arthur |
| 16 | Langley, Smith & Co. | Lub. | 4,350 | New York |
| 16 | Anglo-American Oil Co. | ,, | 2,500 | N. Orleans |
| 16 | ,, ,, | ,, | 47,360 | New York |
| 16 | Vacuum Oil Co. | ,, | 4,090 | ,, |
| 16 | W. M. Kidston & Co. | Lub. Gr. | 2,600 | ,, |
| 16 | Mercantile Lighterage Co. | Lub. | 240 | ,, |
| 16 | R. O. Weiner & Co. | ,, | 320 | Antwerp |
| 16 | L. Freeland | Lub. Gr. | 1,850 | ,, |
| 17 | Anglo-American Oil Co. | Fuel | 869,560 | New York |
| 17 | ,, ,, | Gas | 1,135,080 | ,, |
| 17 | Port Authority | Lub. | 480 | Marseilles |
| 17 | J. Thompson | ,, | 2,740 | Philadel. |
| 17 | Produce Brokers Co. | ,, | 2,600 | ,, |
| 17 | H. Johnson, Sons & Co. | Lub. Gr. | 90 | New York |
| 17 | Hanseatic Maritime Agency | Lub. | 120 | Bremen |
| 17 | Port Authority | ,, | 4,720 | Hamburg |
| 17 | Asiatic Petroleum Co. | Benzine | 1,622,800 | P. Samboe |
| 17 | ,, ,, | ,, | 1,157,600 | Rangoon |
| 17 | Anglo-American Oil Co. | Naphtha | 1,648,130 | Kustendje |
| 18 | Lubricating & Fuel Oils Co. | Lub. | 13,700 | Philadel. |
| 18 | B. Jacob & Son | ,, | 6,830 | ,, |
| 19 | Trinidad Lake Asphalt Co. | Lub. Resid. | 3,580 | N. News |
| 19 | Bramwell, Fern & Co. | Lub. | 10,090 | Philadel. |
| 19 | Port Authority | ,, | 360 | Hamburg |
| 20 | ,, | ,, | 400 | ,, |
| 20 | Ragosine & Co. | ,, | 5,960 | Philadel. |
| 20 | Mercantile Lighterage Co. | ,, | 13,600 | ,, |
| 20 | Schliemann's Oil, etc., Co. | Lub. Oil and Gr. | 4,860 | Hamburg |
| 20 | Lubricating & Fuel Oils Co. | Lub. | 907,990 | Batoum |
| 20 | J. Spurling | Lub. Gr. | 320 | New York |
| | LIVERPOOL— | | | |
| 16 | W. B. Dick & Co. | Lub. | 5,800 | New York |
| 16 | Vacuum Oil Co. | ,, | 760 | ,, |
| 17 | Cunard Steamship Co. | ,, | 1,560 | ,, |
| 17 | Petroleum Products Co. | Lub. Gr. | 400 | Hamburg |
| 17 | Pickford's | Lub. | 130 | ,, |
| 18 | J. S. Holt & Co. | ,, | 2,000 | Boston |
| 18 | Anglo-American Oil Co. | ,, | 18,400 | New York |
| 18 | Huxley & Co. | ,, | 420 | Antwerp |
| 19 | Crew, Levick & Co. | Lub. Gr. | 800 | Philadel. |
| 19 | ,, | Lub. | 39,740 | ,, |
| 19 | Bramwell, Fern & Co. | ,, | 2,780 | ,, |
| 19 | Vacuum Oil Co. | ,, | 2,600 | ,, |
| 19 | Bowring Petroleum Co. | ,, | 9,080 | ,, |
| 19 | Anglo-American Oil Co. | Lub. | 11,040 | ,, |
| 19 | ,, ,, | Lub. Gr. | 5,200 | ,, |
| 19 | W. B. Dick & Co. | Lub. | 6,680 | ,, |
| 19 | Worthington & Boler | ,, | 8,040 | ,, |
| 19 | American Line | ,, | 1,000 | ,, |
| 19 | Meade-King, Robinson & Co. | ,, | 17,520 | ,, |
| 19 | Fellows, Morton & Clayton | ,, | 2,460 | ,, |
| 19 | Universal Shipping Co. | ,, | 40 | Bombay |
| 20 | Burnaby & Chantrell | ,, | 2,500 | Quebec |
| 20 | ,, ,, | Lub. Gr. | 2,350 | New York |
| 20 | Valvoline Oil Co. | Lub. | 14,970 | ,, |
| 20 | Vacuum Oil Co. | Lub. Oil and Gr. | 16,920 | ,, |
| | BOSTON— | | | |
| 20 | W. F. Beaumont | Lub. | 110 | Hamburg |
| | BRISTOL— | | | |
| 17 | Anglo-Mexican Petroleum Products Co. | Lamp | 1,295,000 | P. Mexico |
| 17 | ,, ,, | Fuel | 2,027,710 | ,, |
| 18 | Anglo-American Oil Co. | Lamp | 1,867,590 | Philadel. |
| 18 | First Anglo-Russian Oil Co. | Lub. Gr. | 80 | Hamburg |
| 18 | Pickford's | Lub. Oil and Gr. | 2,490 | ,, |
| 18 | ,, | ,, | 480 | ,, |
| 19 | Colthurst & Harding | Lub. | 1,000 | New York |
| 20 | C. Hill & Sons | Lub. Oil and Gr. | 5,660 | ,, |
| 20 | W. G. Clarke | Lub. | 500 | Antwerp |
| | GOOLE— | | | |
| 20 | Goole Steamship Co. | ,, | 40 | Hamburg |
| | GRIMSBY— | | | |
| 17 | J. Sutcliffe & Son | ,, | 490 | Antwerp |
| 17 | ,, | ,, | 750 | ,, |
| June. | HARWICH— | | | |
| 13 | Great Eastern Railway | Lub. | 440 | Antwerp |
| 18 | ,, ,, | ,, | 170 | ,, |
| | HULL— | | | |
| 16 | British Petroleum Co. | Lamp | 870,000 | Kustendje |
| 16 | T. Wilson, Sons & Co. | Lub. | 34,060 | New York |
| 17 | W. Gilyott & Co. | ,, | 11,600 | ,, |
| 19 | Wilson's & N. E. Railway | ,, | 600 | Hamburg |
| 19 | ,, ,, | ,, | 560 | Antwerp |
| 19 | Asiatic Petroleum Co. | Benzine | 669,600 | Rangoon |
| | MANCHESTER— | | | |
| 16 | Statter & Co. | Lub. Oil and Gr. | 1,310 | Philadel. |
| 17 | Liverpool Storage Co. | Lub. | 12,100 | New York |
| 17 | D. Currie & Co. | Lub. Oil and Gr. | 3,000 | Hamburg |
| 18 | Bramwell, Fern & Co. | Lub. | 1,020 | New York |
| 19 | Anglo-American Oil Co. | ,, | 122,160 | ,, |
| 19 | ,, ,, | Lub. Gr. | 1,200 | ,, |
| 19 | Meade-King, Robinson & Co. | Lub. | 5,200 | ,, |
| 19 | F. Schofield & Co. | ,, | 2,570 | ,, |
| 19 | W. W. Jones, Dooly & Co. | ,, | 5,200 | ,, |
| 20 | G. B. Taylor | ,, | 5,250 | ,, |
| | NEWCASTLE— | | | |
| 17 | Tyne-Tees Steamship Co. | ,, | 3,720 | Antwerp |
| 17 | ,, ,, | ,, | 240 | Hamburg |
| | NEWPORT— | | | |
| 19 | M. Jones & Co. | Lub. Gr. | 130 | Antwerp |
| | PORTSMOUTH— | | | |
| 15 | Bristol Steam Navig. Co. | Lub. | 110 | Hamburg |
| | SWANSEA— | | | |
| 16 | Burgess & Co. | Lub. Gr. | 110 | ,, |
| | ABERDEEN— | | | |
| 16 | R. C. Reid & Co. | Lub. Oil and Gr. | 2,200 | ,, |
| | GLASGOW— | | | |
| 17 | Clyde Shipping Co. | ,, | 590 | Antwerp |
| 20 | Allan Bros. & Co. | ,, | 22,200 | Philadel. |
| | GRANTON— | | | |
| 17 | Asiatic Petroleum Co. | Benzine | 341,000 | Rotterdam |
| | LEITH— | | | |
| 18 | G. Gibson & Co. | Lub. | 6,400 | Dunkirk |
| 18 | ,, | ,, | 80 | Antwerp |
| 18 | Jas. Currie & Co. | ,, | 8,400 | Hamburg |
| 19 | ,, | ,, | 240 | Bremen |
| | CORK— | | | |
| 15 | P. Murphy & Co. | Lub. Oil and Gr. | 160 | Hamburg |
| | DUBLIN— | | | |
| 18 | P. Murphy & Co. | Lub. | 200 | ,, |
| | BELFAST— | | | |
| 18 | G. Heyn & Sons | ,, | 880 | Riga |
| | LIMERICK— | | | |
| 19 | Limerick Steamship Co. | Lamp | 809,000 | Port Arthur |
| | | | 15,889,540 | |

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From Lloyd's

June 25th, 1914.

# THE "REVIEW" SHIPPING LIST.

*The following abbreviations are used in this table:*—L. Left. Pd. Passed. Arr. Arrived. Sp. Spoken. T. Trading. Cl. Cleared
The Anglo-American Co.'s vessels marked thus (*). The Anglo-Saxon Co.'s tankers thus (△). Messrs. Lane & Macandrew's thus (□).

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| ADORNA | Iquique | San Francisco | Arr. June 22 |
| AMERICAN | Antwerp | New York | L. June 15 |
| APPALACHEE* | Sheerness | New York | 124 m. S.E. Brow Head June 22 |
| APSCHERON | Kustendje | Genoa | Arr. June 18 |
| ARAL | Tyne | New York | Arr. June 22 |
| ARAS | Sabine | London | L. Norfolk, Va., June 9 |
| ARCA | Rangoon | — | Pd. Southend June 20 |
| ARES | Rotterdam | Novorossisk | Pd. Constantinople. June 19 |
| ARTHUR VON GWINNER | Kustendje | Antwerp | Arr. Lisbon June 20 |
| ASHTABULA* | London | Kustendje | 72 m. S.E. Lands End June 22 |
| ASTRAKHAN | Sabine | New Orleans | L. June 21 |
| AUREOLE | Barrow | Sabine | Arr. Norfolk, Va., June 24 |
| AZOV | Callao | London | L. June 17 |
| BAKU STANDARD | Portland | Philadelphia. | Arr. June 24 |
| BALAKANI □ | Port Arthur | Manchester | L. Newport News June 17 |
| BARNESON | San Francisco | London | L. Rio Janeiro June 3 |
| BATOUM | Amsterdam | New Orleans. | L. St. Michaels June 14 |
| BAYONNE | Kustendje | — | Pd. Dard. June 22 |
| BEACON LIGHT | Port Arthur | Killingholme | L. Norfolk, Va., June 15 |
| BEECHWOOD | Liverpool | Cienfuegos | L. June 20 |
| BLOOMFIELD | Kustendje | London | Arr. June 20. In port June 24 |
| BORJOM | Dunkirk | Batoum | Pd. Dard. June 23 |
| BRILLIANT (Br. Bq.) | Hong Kong | New York | Arr. May 22. In port June 12 |
| BRILLIANT | Emden | New York | Pd. Liz'd June 11 |
| BRITISH SUN | Philadelphia. | Antwerp | Pd. Delaware B water June 12 |
| BROADMAYNE | New York | Calais | Pd. Dungeness June 24 |
| BUFFALO | San Francisco | Woosung | L. June 18 |
| BULLMOUTH △ | Singapore | Gibraltar | Pd. Perim June 21 |
| BULYSSES △ | Shanghai | Singapore | L. June 16 |
| BURGERMEISTER PETERSEN | Sabine | Oxelosund | Pd. Viken June 19 |
| BUYO MARU | Rangoon | Bombay | Arr. June 1. In port June 5 |
| C. A. CANFIELD* | New York | Tampico | L. June 23 |
| CALCUTTA (Br. Bq.) | Yokohama | San Francisco | L. June 9 |
| CAMILLO | Port Arthur. | Killingholme | Off Isle of Wight June 23 |
| CAPTAIN A.F. LUCAS | — | — | T. U.S. Pacific |
| CARDIUM △ | Tyne | Suez | Arr. Port Said June 13 |
| CARPATHIAN □ | London | Port Arthur. | Arr. June 20 |
| CASSIS | Calcutta | Rangoon | L. June 18 |
| CASTOR | Singapore | Foochow | Arr. June 18 |
| CAUCASIAN □ | Port Arthur | Rotterdam | L. June 17 |
| CHARLES E. HARWOOD | Galveston | Tampico | L. June 9 |
| CHARLOIS | New York | Rotterdam | Pd. Dungeness June 23 |
| CHATHAM | New Orleans. | Tampico | L. Port Eads June 5 |
| CHESTER | Antwerp | Norfolk, Va. | Arr. June 24 |
| CHEYENNE | Sabine | Barrow | L. June 19 |
| CIRCASSIAN PRINCE | — | — | T. W. Coast South America |
| CLAM △ | Calcutta | Aroe Bay | L. June 15 |
| CLEARFIELD | Maddalena | — | Pd. Sagres June 22 |
| COMANCHEE | London | New York | 100 m. S.E Brow Head June 19 |
| CONCH △ | Calcutta | Rangoon | Arr. June 19 |
| CONRAD MOHR | Bergen | Philadelphia | L. Tyne June 12 |
| CORDELIA | Antofagasta. | San Francisco | Arr. June 6. In port June 11 |
| COWRIE △ | Balek Pappan | Gibraltar | L. Singapore June 11 |
| CURRIER | New York | Puerto Padre | 614 m. S. Scotland Lightship June 9 |
| CYMBELINE | Thames Haven | Philadelphia. | Pd. Prawle Point June 21 |
| CYRENA | Singapore | Soesoe | Arr. June 10 |
| CZAR NICOLAI II. | Venice | Batoum | Pd. Dard. June 23 |
| DAGHESTAN | Batoum | Hamburg | Pd. Gib. June 22 |
| DANUBIAN □ | Hamburg | Tyne | Arr. June 22 |
| DAYLIGHT (Br. Bq.) | Philadelphia. | Hiogo | Spoken May 26, 11 N., 25 W. |
| DELAWARE* | Sunderland | Tyne | Arr. Apr. 20. In port June 22 |
| DELPHIN | Baton Rouge | Flushing | L. Norfolk, Va., June 16 |
| DERBENT | Batoum | Manchester | Pd. Smalls June 24 |
| DESABLA | Port Harford | Iquique | L. June 19 |
| DEUTSCHLAND | Tyne | Philadelphia. | Pd. Dunnet Head June 21 |
| DIAMANT | Amsterdam | Philadelphia. | Pd. Liz'd June 20 |
| DONAX | Sabang | Singapore | Arr. June 17 |
| EBURNA △ | Tyne | Port Said | Arr. June 18 |
| EDWARD L. DOHENEY | Tampico | New York | Arr. June 23 |
| EL LOBO | Lobitos | San Francisco | Arr. June 15 |
| EL SEGUNDO | Seattle | Vancouver | Arr. June 17 |
| EL TORO | Campana | New Orleans | Arr. June 16 |
| ELAX △ | Rotterdam | Pernis | L. June 15 |
| ELBRUZ | Tyne | Amsterdam | In port June 23 |
| ELISE MARIE | Sabine | Rotterdam | L. Norfolk, Va., June 12 |
| ELSINORE | San Francisco | Antofagasta | L. Port San Luis June 4 |
| EMANUEL NOBEL | Antwerp | Batoum | Pd. Sagres June 18 |
| ENERGIE | Havana | New York | Arr. May 22 |
| ERIVAN | Kustendje | Brindisi | Pd. Dard. June 19 |
| ESCALONA | Cherbourg | Tyne | Arr. June 12 |
| ESTURIA | — | Balek Pappan | Arr. June 15 |
| EUPION | Philadelphia. | Matanzas | Pd. Cape Hatteras June 11 |
| EUPLECTELA △ | N'castle, NSW | Balek Pappan | L. June 16 |
| EXCELSIOR | Philadelphia. | Hamburg | Arr. June 15 |
| F. A. TAMPLIN | Puerto Mexico | Copenhagen. | L. Norfolk June 19 |
| FRANCE MARIE (Belgian Ship) | — | — | T. b'tw'n Tampico and Pt. Arthur |
| FUMI MARU | Tsingtau | Dairen | L. April 26 |
| GEESTEMUNDE | New Orleans. | New York | Arr. Jan. 28. In port May 8 |
| GENESSE* | Maryport | New York | 250 m. N.W. Lands End June 18 |
| GEORGIAN PRINCE | Port Arthur | Stockholm | Off Isle of Wight June 21 |
| GOLDMOUTH △ | Soesoe | Singapore | Arr. June 18 |
| H. C. HENRY | Eagle Harb'r | Balek Pappan | L. Hong Kong June 17 |
| HAGEN | New York | Hamburg | Arr. May 9. In port June 15 |
| HAINAUT (Barge) | — | — | Arr. New Orleans about June 5 |
| HARPORT | Pisagua | San Francisco | Arr. May 2. In port June 11 |
| HAVRE | Table Bay | Algoa Bay | L. June 23 |
| HELIOS | Rotterdam | New York | Pd. Liz'd. June 19 |
| HERA | New York | — | Pd. Dunnet Hd. June 21 |
| HERBERT G. WYLIE | Galveston | Tampico | Cd. Galveston Bar June 1 |
| HERMIONE | New York | Sheerness | L. June 21 |
| HESPERUS | San Francisco | Iquique | L. Antofagasta June 13 |
| HORLEY | Tampico | Baltimore | Arr. June 22 |
| HOTHAM NEWTON | Batoum | Dunkirk | Pd. Sagres June 19 |
| HYRCANIA | Port Arthur. | Killingholme | L. June 17 |
| ILLINOIS | New York | Port Arthur. | L. June 13 |
| IMPEROYAL | — | — | T. R. St. Lawrence |
| IMPOCO | Malta | Kustendje | Pd. Dard. June 19 |
| IROQUOIS (Towing Barge Navahoe) | London | New York | Arr. June 20 |
| J. B. AUG. KESSLER △ | Rotterdam | Port Arthur. | L. Dartmouth June 15 |
| J. OSWALD BOYD | Tampico | Galveston | Arr. June 4 |
| JULES HENRY (Fr. Bq.) | Marseilles | Kustendje | L. June 19 |
| JUNO △ | Palembang | Miri | L. June 13 |
| JUPITER | Rotterdam | New York | 180 m. W. Lauds End June 15 |
| KANAKUK | San Francisco | Hong Kong | L. May 28 |
| KASBEK | Rouen | Batoum | L. June 11 |
| KIOWA | Baton Rouge | Hamburg | L. Norfolk, Va., June 11 |
| KIYO MARU | Valparaiso | Yokohama | L. Honolulu June 12 |
| KREMLIN | Batoum | Thames Haven | Pd. Southend June 22 |
| KURA | Hull | Batoum | L. June 19 |
| LA CAMPINE | New York | Antwerp | L. June 13 |
| LA FLANDRE | Sabine | Ghent | L. Norfolk June 17 |
| LA HABRE | Tocopilla | Port San Luis | L. June 7 |
| LA HESBAYE | Antwerp | New York | Arr. May 27. In port June 12 |

| Vessel. | From. | For. | Latest Date and Position. |
|---|---|---|---|
| LACKAWANNA* | Rotterdam | Perim | L. June 12 |
| LAMPO | Messina | — | Pd. Gib. June 23 |
| LE COQ □ | New York | Cette | L. June 18 |
| LEDA | Hamburg | Baton Rouge | Arr. N. Orleans June 17 |
| LOKI | Hamburg | New York | Pd. Dover June 18 In w.com. June 20 |
| LUCELLUM | Portsmouth | Port Arthur. | Pd. Sand Key June 24 |
| LUCERNA | Safaga | Suez | Arr. June 17 |
| LUCIGEN | Abadan | Sheerness | Pd. Peniche Jn. 21 |
| LUCILINE □ | Tyne | New York | Pd. Cape Wrath June 19 |
| LUMEN | Kustendje | Rouen | Pd. Peniche Jn. 23 |
| LUTETIAN □ | New York | Havre | L. June 13 |
| LUX □ | New York | Barcelona | Arr. June 19. In port June 21 |
| LUZ BLANCA | Payta | London | L. Taltal June 22 |
| MAKKAVEI | Trieste | Const'ntinople | Pd. Dard. June 14 |
| MANNHEIM | Tuborg | Philadelphia. | Pd. Cape Wrath June 20 |
| MARGARETHA | Alexandria | Kustendje | L. June 18 |
| MASCONOMO | San Francisco | Muroran | L. May 18 |
| MASSASOIT | ThamesHaven | — | Pd. Southend June 23 |
| MEPPEN | Brunshausen. | — | 130 m. S.E. Brow Head June 16 |
| METEOR | Batoum | Vladivostock. | Arr. June 3 |
| MEXICAN PRINCE | Singapore | Kobe | L. June 11 |
| MIJDRECHT | Braila | Hamburg | L. Sulina June 21 |
| MINA BREA | San Francisco | Payta | Arr. June 22 |
| MIRA | Port Arthur | Hammerfest. | L. Norfolk, Va., June 8 |
| MITRA △ | Cardiff | — | Pd. Dard. June 22 |
| MOHAWK* | Tampico | Tampa | Arr. June 15 |
| MOHICAN | Swinemunde. | Port Arthur | Pd. Beachy Head June 21 |
| MUREX △ | Hong Kong | Balek Pappan | L. June 14 |
| NARRAGANSETT | London | New York | Arr. June 24 |
| NATICA △ | Batoum | Singapore | Arr. June 18 |
| NELSON | Puerto Padre | New Orleans | Lt. Nipe June 2 |
| NEW YORK* | Rotterdam | New York | Arr. June 20 |
| NIAGARA | San Francisco | Woosung | L. June 2 |
| NORMAN BRIDGE | Tampico | Sabine | L. May 27 |
| OAKWOOD | Cienfuegos | U.K. or Cont. | L. June 7 |
| OBERON | Vanc'ver, B.C. | Los Angeles | Arr. ab't June 11 |
| OCEAN | Philadelphia. | Amsterdam | Arr. June 19 |
| OILFIELD | Gothenburg | Port Arthur. | L. Norfolk Jn. 15 |
| ORIFLAMME □ | Novorossisk | Havre | Arr. Havre Jn. 22 |
| OSAGE | New York | Tampico | Pd. Sand Key June 11 |
| OTTAWA* | Sabine | Queenstown | L. Norfolk, Va., June 22 |
| OURAL | Kustendje | Maddalena | Pd. Dard. June 22 |
| PALEMBANG △ | Abadan | Colombo | L. June 13 |
| PATELLA △ | Singapore | London | Pd. Gib. June 23 |
| PAUL PAIX | Kustendje | Dunkirk | Pd. Gib. June 22 |
| PAULA | New York | Flushing | L. June 22 |
| PAWNEE | Cuxhaven | New York | 120 m. S.W. Brow Hd. June 13 |
| PECTAN | Antofagasta | San Francisco | L. San Pedro June 13 |
| PENNOIL | Philadelphia. | Dover | L. June 16 |
| PETROLEINE | Kustendje | Rouen | Pd. Dard. June 19 |
| PETROLEUM | Sheerness | Portland | Arr. May 6 |
| PHOEBUS | San Francisco | Pisagua | L. June 11 |
| PINNA □ | Port Arthur. | New Orleans | Arr. June 16 |
| PONUS | Calcutta | San Francisco | Arr. June 12 |
| POTOMAC* | Sunderland | New Orleans. | 84 m. W. Lizard June 16 |
| POWHATTAN | Barrow | New York | Arr. June 2. In port June 12 |
| PROMETHEUS | Arica | New York | L. June 21 |
| PRUDENTIA | New York | Trinidad | L. June 12 |
| PURELIGHT | Rotterdam | Port Arthur | Pd. Liz'd June 16 |
| QUEVILLY (Fr. Bq.) | Havre | New York | L. June 21 |
| RADIOLEINE | Marseilles | Kustendje | Arr. June 19 |
| RANELLA △ | Tsingtau | San Francisco | L. June 16 |
| RENDOVA (Br. Bq.) | Seville | New York | L. May 19 |
| RICHMOND | Philadelphia. | NewportNews | L. June 22 |
| RION | Foynes | Penarth | L. June 23 |
| ROCK LIGHT □ | Hull | New Orleans | Arr. Port Eads June 22 |
| ROMANY △ | Gemsah | Suez | Arr. June 22 |
| ROSALIND | Port Arthur. | Killingholme | Arr. Norfolk June 23 |
| ROTTERDAM | Amsterdam | New York | Arr. June 21 |
| ROUMANIAN □ | New Orleans. | Hamburg | Arr. June 21 |
| ROUM'NIAN PRINCE | Tampico | Port Arthur | Arr. June 18. L. June 20 |
| RUSSIAN PRINCE | Aransas | Galveston | Arr. June 22 |
| SABINE RICKMERS | Singapore | Swatow | L. June 11 |
| SALAHADJI △ | Singapore | Sydney | Arr. Brisbane June 21 |
| SAMOSET | Singapore | San Francisco | Arr. June 22 |
| SAN ANTONIO | Manchester | Puerto Mexico | Pd. Fayal June 18 |
| SAN BERNARDO | London | Puerto Mexico | Arr. June 16 |
| SAN CRISTOBAL | — | — | T. Mexican Coast |
| SAN DUNSTANO | Port Arthur. | Puerto Mexico | Arr. June 21 |
| SAN EDUARDO | Puerto Mexico | Tuxpan | Arr. June 14 |
| SAN FRATERNO | New Orleans. | Trieste | Arr. June 18 |
| SAN GREGORIO | Port Arthur. | London | L. Norfolk, Va., June 16 |
| SAN HILARIO | Tuxpan | — | L. June 19 |
| SAN ISIDORO | New York | Puerto Mexico | L. June 18 |
| SAN JERONIMO | Thames Haven | Puerto Mexico | Pd. Sand Key June 10 |
| SAN JOAQUIN | San Francisco | Taltal | L. June 10 |
| SAN LORENZO | New York | Puerto Mexico | L. June 20 |
| SAN MELITO | Avonmouth. | Tuxpan | 90 m. S.E. Brow Hd. June 21 |
| SAN RICARDO | Amsterdam | Galveston | Arr. June 23 |
| SAN SILVESTRE | New Orleans. | London | L. Norfolk, Va., June 19 |
| SAN TIRSO | Partington | Puerto Mexico | 30 m. W. Brow Hd June 21 |
| SAN URBANO | Philadelphia. | Puerto Mexico | Arr. June 20 |
| SAN VALERIO | Philadelphia | Tuxpan | Pd. Key West June 21 |
| SAN WILFRIDO | Tyne | Baton Rouge | Pd. Prawle Point June 14 |
| SAN ZEFERINO | Puerto Mexico | Norfolk, Va. | L. June 21 |
| SANTA MARIA | Victoria, B.C. | Vancouver | L. June 9 |
| SANTA RITA | Port San Luis | Honolulu | L. June 5 |
| SATANTA | Bombay | Mi-ike | L. May 26 |
| SAXOLEINE | Cette | Philadelphia. | Pd. Sagres June 22 |
| SEBASTIAN | Kustendje | Havre | Pd. Sagres June 23 |
| SELENE | Dundee | Amsterdam | Arr. Feb. 24. In port June 22 |
| SEQUOYA | San Francisco | Moji | L. June 6 |
| SERVIAN □ | Cardiff | — | Pd. Barry Island June 23 |
| SHABONEE | San Francisco | Itosaki | L. June 22 |
| SILVIA | Port Victoria | Persian Gulf | Pd. Port Said June 23 |
| SIOUX | Talara | Campana | Arr. Buenos Aires June 22 |
| SIRIUS (Ger.) | Kustendje | Bizerta | Pd. Dard. June 17 |
| SOCONY | New York | Port Arthur. | Arr. June 13 |
| SOYO MARU | Bombay | Abadan | L. May 18 |
| SPLENDOR | Savona | Baton Rouge | L. New Orleans June 7 |
| STAG | Antilla | Rotterdam | Arr. June 16. In port June 22 |
| STANDARD | Montreal | New York | Arr. June 10. In port June 12 |
| STROMBUS △ | Port Arthur. | Killingholme | Pd. Spurn Head June 24 |
| SULTAN VAN LANGKAT △ | Tarakan | Sydney | L. June 14 |
| SUNLIGHT (Br. Bq.) | Macoris | Rotterdam | L. June 2 |
| SURAM | Kustendje | Hull | Pd. Dard. June 17 |
| SUWANEE* | Sunderland | Bristol | Arr. May 10. In port June 9 |
| SVIET | Batoum | Odessa | L. May 31 |
| TASCALUSAH | San Francisco | Itosaki | L. June 1 |
| TATARRAX | San Francisco | Tientsin | Arr. June 7 |
| TEAKWOOD | Killingholme | Immingham. | Arr. June 21 |
| TECUMSOH | Tampico | Philadelphia. | Arr. June 21 |
| TELENA △ | Suez | Madras | Pd. Perim June 21 |
| TEREK | Batoum | Copenhagen | Pd. Dover June 20 |
| TEUTONIAN | Sunderland | Tyne | Arr. April 1. In port June 22 |
| TEXAS | Antwerp | Port Arthur | Arr. June 16 |
| TIFLIS | Naples | Batoum | Pd. Dard. June 22 |
| TONAWANDA* | New Orleans | Manchester | L. Norfolk, Va., June 22 |
| TRINCULO | PortSan Luis | Panama | L. June 3 |
| TRINIDADIAN | Tampico | Tampa | Arr. June 15 |
| TRITON | Rotterdam | Baton Rouge | Arr. June 19 |
| TROCAS △ | N'castle, NSW | Singapore | L. June 12 |
| TURBO △ | Hull | — | Pd. Gib. June 19 |
| UNCAS | Hong Kong | San Francisco | L. June 13 |
| VEDRA | New Orleans | Belfast | Arr. June 24 |
| VILLE DE DIEPPE (Norwegian Barque) | Tyne | New York | L. June 10 |
| VITRUVIA | Thames Haven | Port Arthur | 200 m. S.W. Brow Hd. June 9 |
| VOLCANUS △ | Miri | Palembang | L. June 13 |
| VOLUTE △ | Novorossisk | Colombo | Pd. Perim June 23 |
| WABASHA | San Francisco | Moji | L. June 5 |
| WANETA | New Orleans. | Sabine | Cl. June 15 |
| WAPELLO | Avonmouth | New York | 30 m. W. Brow Hd. June 23 |
| WASHINGTON | New York | Liverpool | L. June 23 |
| WEEHAWKEN | Tyne | Port Arthur | Pd. Cape Wrath June 24 |
| WIELDRECHT | Rotterdam | Novorossisk | Pd. Pantelleria June 22 |
| WILLKOMMEN | Tyne | New York | L. June 16 |
| WINAMAC | Shanghai | San Francisco | L. June 19 |
| WOTAN | New York | Hamburg | Arr. June 9. In port June 15 |

# Royal Dutch Company for the Working of Petroleum Wells in Netherlands India.

## REPORT FOR 1913.

TO THE SHAREHOLDERS OF THE ROYAL DUTCH COMPANY FOR THE WORKING OF PETROLEUM WELLS IN NETHERLANDS INDIA.

Gentlemen,—In accordance with the provisions contained in the Statutes we herewith beg to submit the Balance Sheet and Profit and Loss Account for the fiscal year ending on December 31st, 1913, which have been examined by us and found correct.

The Profit and Loss Account shows that a dividend of 48 per cent. can be paid to the shareholders. In accordance with the provisions of article 31 of the Statutes, a dividend of 4½ per cent. has already been distributed on the priority shares. In February of the current year an interim-dividend of 15 per cent. has been paid on the ordinary shares, so that a further 33 per cent. will be distributed.

We therefore beg to advise :

*a.* That the annexed Balance Sheet and Profit and Loss Account be approved.

*b.* That the dividend for 1913 be fixed at 4 per cent. for the preference shares and at 48 per cent. for the ordinary shares, respectively f40.— per preference share and pro resto f330.— per ordinary share at f1,000.— and f33.— per sub-share at f100.—.

*c.* That the Managing Directors be discharged regarding their management up to December 31st, 1913.

In the course of last year our Board suffered a severe loss through the death of Jonkheer L. H. Ruyssenaers, L.L.D. Although only having been on our Board for a few years, we learnt to highly appreciate the deceased's co-operation.

We further regret to have to report that our colleague Mr. Aug. Janssen has expressed his wish to retire at the end of 1913, as the state of his health does not allow him to retain his place on our Board.

The Chairman of our Board Jonkheer C. H. A. van der Wijck, has announced his desire to retire from that function, also owing to ill-health. It is with great regret that we have had to accede to this desire. Dr. A. Capadose was now elected as Chairman of the Board and has accepted that function.

It still has to be mentioned, that at the General Meeting of June 23rd, 1913, Mr. Aug. Janssen, who had to retire by rotation, was re-elected as a Commissaire. Dr. A. Capadose has this year to retire by rotation, and is re-eligible. Proposals will be submitted to you in order to fill up the vacancies, occasioned by the decease of Jonkheer L. H. Ruyssenaers and the resignation of Mr. Aug. Janssen.

The Hague, June, 1914.

The Board of Commissaires :—

A. CAPADOSE, *Chairman.*
G. C. B. DUNLOP, *Secretary.*

### REPORT SUBMITTED BY THE MANAGING DIRECTORS TO THE BOARD OF COMMISSAIRES.

The year 1913 has been very prosperous for our Company. Important extensions were applied to several branches of our business and the financial results are exceptionally favourable.

No alteration of the nominal capital of our Company has taken place during the year under report. It therefore remians at f100,000,000.—, divided into 1,500 preference shares, 28,500 priority shares, and 70,000 ordinary shares of f1,000.—each, all the preference and priority shares having been issued and fully paid up.

Of the ordinary shares a total amount of f52,317,000.— had been issued at the commencement of the year under report. In the course of that year an agreement was made with the remaining shareholders of the 's-Gravenhage Association, Ltd., whereby they exchanged their shares against shares in our Company and the Shell Transport and Trading Company, Ltd., whilst afterwards the exchanged shares were delivered by the Royal Dutch and the Shell to the Anglo-Saxon Petroleum Company, Ltd., The Anglo-Saxon, already possessing 433,500 shares out of the total capital of 850,000 £1 shares of the 's-Gravenhage Association, besides 510 deferred shares, thus obtained the balance of the ordinary and deferred shares, viz., 416,500 ordinary and 490 deferred shares.

In exchange the shareholders of the 's-Gravenhage Association received a nominal amount of f282,400.— Royal Dutch Shares, and £19,646 Shell shares. The Royal Dutch has been credited in connection with this transaction by the Anglo-Saxon for f1,591,047.15.

In December, 1913, a new issue of f4,046,000.— nominal at the rate of 620 per cent. was made, the subscription for which was open to the holders of ordinary shares, while the total amount of the issue was guaranteed by Messrs. N. M. Rothschild & Sons of London. More than f1,200,000.— being subscribed for in Holland, the rest was issued by the aforesaid firm in London.

By these different transactions the number of issued ordinary shares was increased up to f56,645,400.—, so that f13,354,600.— still remains unissued.

During the year under report two alterations of the Statutes were adopted respectively in the General Meetings of Shareholders of July 8th and December 18th, whereon the Royal Sanction was obtained by Royal Decrees of respectively August 14th, 1913, No. 74, and January 22nd, 1914, No. 5. The first alteration was principally made in order to moderate to a certain extent the predominating influence, conceded to the holders of preference shares, in the matter of the election of the Board, by allowing, besides their nomination, also a nomination by a combined meeting of the Managers and the Commissaires. An alteration was also made in the remuneration of the Managers, reducing their tantième from 12 per cent. to 3 per cent., such partly in connection with the new arrangement with the Shell, by which that Company, through the agency of the Bataafsche and the Anglo-Saxon, will contribute more to that remuneration, and partly in connection with the circumstance that two of the Managing Directors have retired from the daily management of the business of the Bataafsche and Anglo-Saxon. The second alteration of the Statutes had in view : firstly, a better arrangement for the signing of shares, sub-shares, and annotations thereon ; secondly, in order to create the possibility of issuing shares against cash, without the shareholders being allowed to exercise their right of preference, and thirdly to distribute an interim dividend. With a view to the great importance which both these alterations of the Statutes have for our Company, the circular letters, in which the alterations with explanations were proposed to our shareholders, are annexed to this report.*

In our last year's report mention was made of the important participations acquired by our Company, the Bataafsche and the Anglo-Saxon in sundry foreign enterprises. This year the working sphere of our different companies underwent further extension.

As stated above, all the shares still held by others in the 's-Gravenhage Association, were taken over by us and the Shell, and delivered to the Anglo-Saxon.

We increased our interests in Russia. The Anglo-Saxon, namely, took a large participation in the North Caucasian Oilfields, Ltd., and assisted in the reconstruction of the Schibayeff Petroleum Company, in the New Schibayeff Petroleum Company, Ltd., in which she also obtained a large holding. Agreements were also made with both these Companies, by which they entrusted the management to the Anglo-Saxon.

We further have to bring to the notice of our shareholders the participation of the Anglo-Saxon in the United British West Indies Petroleum Syndicate, Ltd., which Syndicate has undertaken the working of very promising oilfields in Trinidad.

A great extension of our Companies' business has been effected by the Anglo-Saxon taking over nearly the whole capital of the Californian Oilfields, Ltd. This Company has a share-capital of £400,000, and, in relation to that capital, a very extensive and prosperous business. It was agreed with the most important shareholders that the shares of this Company be exchanged against an equal nominal number of Shell shares, plus an amount in cash equal to the nominal value. In consequence hereof the Royal Dutch and the Shell had to place at the disposal of the shareholders in the California Oilfields £400,000 Shell shares and £400,000 in cash. With the exception of about £1,000, the whole of the capital of the California Oilfields has thus been exchanged by its shareholders. Our Company had in this connection, out of its holding of 500,000 Shell shares, to deliver about 240,000 shares, for which it has been credited by the Anglo-Saxon.

The Anglo-Saxon has during the preceding year further assisted in the forming of companies for the trade in petroleum-products in Sweden, Norway, and Denmark.

Important sums were involved in the above transactions, while the extension of the fleet necessitated a further expenditure of over £250,000, so that in total the Anglo-Saxon has, during the year under report, incurred a capital expenditure of about £2,000,000, which amount, for the greater part, had to be subscribed by the Royal Dutch and Shell. Consequently during the current year the Anglo-Saxon's capital was brought up to £8,000,000 and thus increased by £2,000,000, of which £1,200,000 was supplied by the Royal Dutch and £800,000 by the Shell.

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* These circular letters will follow in a few days.

As regards the business of our foreign Companies we can communicate the following :—

Russia.—The production of the "Société Commerciale et Industrielle de Naphte Caspienne et de la Mer Noire," commonly called "Bnito," which in 1912 amounted to 562,065 tons, during the year under report totals 549,000 tons.

The "Nouvelle Société du Standard Russe de Grosny" produced 172,000 tons, as against 238,767 tons in 1912.

The "Mazout" Company extended its business and established several new depots.

In the preceding year the "Ural Caspian Oil Corporation, Ltd.," could, after the completion of the pipeline to the coast, begin shipping its production. That Company produced over 91,000 tons of crude oil, of which nearly 60,000 tons were shipped. Its fields are for the greater part still in the stage of exploration. During the preceding year the building of a refinery was started, which was completed in 1914, and which is expected during this year to turn out 40,000 tons of kerosene.

The "North Caucasian" produced about 150,000 tons, as against 40,000 tons in the preceding year.

The "New Schibayeff Petroleum Company, Ltd.," produced about 90,000 tons.

As shown by the above, the production of some of our Russian Companies during the year under report was somewhat smaller than during the preceding year. That decrease was, however, partly counterbalanced by the production of new companies, in which we participated since, and among which the "Grosny-Sundja Oilfields, Ltd.," has still to be mentioned, whose fields are for the greater part in the stage of exploration but already produce more than 1,000 tons per week from a few successful wells.

Egypt.—The production of the fields of the Anglo-Egyptian Oil Fields, Ltd., amounted to 12,124 tons for the preceding year. Although the exploitation was energetically pursued, the results remained unsatisfactory. It is only in the beginning of this year that a change for the better took place. Not only that by the striking of a gusher on the original field where the exploitation had been started (Gemsah), the weekly production increased in the beginning of 1914 from about 600 to more than 8,000 tons, but besides, in one of our Southern concessions, Hurgada, oil was struck, in consequence of which the prospects for an increase of the production in Egypt have decidedly improved.

North America.—The production of the fields in Oklahoma of the 's-Gravenhage Association, Ltd., in America, working through a new company, the "Roxana Company," amounted during last year to more than 1,000,000 barrels, while at the present moment the daily production amounts to about 2,000 barrels.

The 's-Gravenhage Association will distribute, after proper amortisation, a dividend of 6 per cent. for last year.

The production of the California Oilfields, Ltd., amounted for the preceding year to more than 4,400,000 barrels.

Mexico.—In Mexico we obtained during the preceding year 20,000 acres of land, while a short time ago we increased our holding by obtaining extensive territories in the State of Tamaulipas, to the north of the city of Tampico. Several borings were started. On January 12th, 1914, oil was struck in a well, 60 kilometres above Tampico, giving an initial daily production of 15,000 barrels. After a few days it appeared from further tests that the well was good for 100,000 barrels daily. Owing to insufficient storage capacity the production has to be restricted and the well had to be partly shut in. Earthen storage was constructed of a capacity of 1,500,000 barrels with the greatest speed. The flow of the well was restricted to 20,000 barrels daily and gradually 1,000,000 barrels were in this manner stored in the earthen reservoirs. Meanwhile steel tanks were ordered and erected on the field, of which three with a capacity of 55,000 barrels are now ready, whilst a fourth tank is in course of construction.

The shipping of the production has been started and we have fortunately been able to continue this regularly. On the terminal property on the Tampico river seven tanks of 55,000 barrels capacity each have been erected; six more are being constructed. The production has now been regulated in accordance with shipments, and it has been possible to restrict the flow, if and when required, to 1,200 to 1,500 barrels daily.

The civil war in Mexico and the difficulties of that country with the United States have somewhat impeded our work.

We acknowledge with gratitude the assistance rendered by the Netherlands Government to the Dutchmen living in Mexico, by the sending of H.M.'s S.S. "Kortenaer."

We annex to our report the last published summarised balance sheets of the Companies "Bnito," "Mazout," "Anglo-Egyptian Oilfields, Ltd.," "California Oilfields, Ltd.," and "Petroleum Maatschappij 'la Corona.'"

Roumania.—The production of the "Astra Romana" amounted during last year to about 450,000 tons.

In Serawak where the exploration work is being done by the Anglo-Saxon, the production for the preceding year amounted to 26,000 tons.

The daily production, which at the end of December, 1913, was 150 tons, now amounts to 180 tons.

The prospects for an increase of production there are favourable. The building of a refinery is under consideration.

Provisionally the crude oil is being shipped to the Sumatra refineries and is treated there.

We now proceed to give a synopsis of the work done in Netherlands India.

## NETHERLANDS INDIA.

Mutations.—As already stated in our previous report, the following mutations took place.

Mr. G. J. Stipriaan Luïscius in the beginning of March, 1913, retired from his position as Head-Administrator and was replaced by Jhr. J. C. van Reigersberg-Versluys. In his place Mr. H. J. Ansingh was appointed administrator at Balikpapan. Mr. W. P. H. du Pon retired at the end of March, 1913, as Administrator at Pangkalan Berandan and was replaced by Mr. M. A. de Jong, while Mr. P. L. Dubourcq was appointed Administrator at Pladjoe.

The administration of the technical department of the Dordtsche Petroleum Maatschappij at Tjepoe remained entrusted to Mr. A. Wurfbain. In the management of the sales-department in Netherlands-India of the Dordtsche Petroleum Company, Mr. B. A. Wennink was in the course of 1913 succeeded by Mr. J. Th. Vonck, Jr.

Our business in Netherlands India gave employment at the end of 1913 to 878 European employees, 5,015 Chinese and 18,152 natives (Javanese, etc.).

### Production of the Fields in Netherlands India.

North Sumatra.—The production of the Perlak field showed a further decline in 1913 and decreased from 188,982 tons in 1912 to 160,339 tons in 1913.

The production of the Zuid Perlak Company, which as known is treated by our refineries, remained at about 16,000 tons.

The production of the Maatschappij tot Mijn-, Bosch- en Landbouw Exploitatie in Langkat delivered to us in 1913 amounted to 111,634 tons, against 164,791 tons in 1912.

South Sumatra.—The production of our fields in South Sumatra amounted in 1913 to 231,850 tons, against 259,319 in 1912.

Borneo.—The production of our fields in Borneo (except Tarakan) amounted in 1913 to 541,492 tons, against 450,989 tons in 1912. The production of the island of Tarakan amounted in 1913 to 225,005 tons, against 221,386 tons in 1912.

Java.—The production of the fields of the Dordtsche Petroleum Maatschappij remained very satisfactory; it amounted to 207,135 tons in 1913, against 184,989 tons in 1912.

The total quantity of crude oil produced from our fields in Netherlands India amounted in 1913 to 1,503,661 tons, against 1,495,955 tons in 1912.

Storage.—The storage capacity in North Sumatra has in 1913 been increased from 112,600 tons to 135,500 tons and in Borneo from 294,300 tons to 349,400 tons. In this last figure is comprised the storage capacity in Tarakan, which now amounts to 77,500 tons and is still further being extended.

Extensive storage facilities are necessary there in order to settle out the water which is brought up with the oil.

### Manufactured Products.

Administration Pangkalan Berandan.—The new bench of stills has worked uninterruptedly and with good results during last year. By the introduction of sundry improvements the consumption of fuel has been considerably decreased.

In total about 360,000 tons of crude oil were treated in the refinery.

The installation at Rantau-Pandjang has been demolished during last year.

The new shipping station at Pangkalan-Soesoe on the Aroe Bay has been put to use. This station consists of a tin factory capable of making 10,000 tins daily, and extensive sheds for the storing of tins and drums. Thanks to this new shipping station, the transport of drums and tins from the refinery at Pangkalan Berandan to the Aroe Bay, which caused great leakage, is now abolished.

Balikpapan.—In the preceding year several improvements have been made at the refinery.

The paraffin factory has, but a few periods of stoppage for cleaning purposes, worked the whole year through.

The production amounted to 12,535 tons, part of which was made into candles. The new extensions are not yet in working order.

The sulphuric acid factory has worked without interruption. The production amounted to 5,960 tons.

In the drum factory several modifications took place owing to the utilising of newly sent out appliances and machines for the welding of drums.

A drum factory was completed at Balikpapan, constructed for making 3,000 drums daily.

The jetties at Balikpapan were lengthened during last year, and partly substituted by iron jetties.

At Maloei (on the Sangkoeliran Bay on the East-Coast of Borneo) an installation was completed for the shipping of oil produced on the Kari-Orang fields.

Pladjoe.—In the refinery at Pladjoe some Persian, and later also some Serawak oil, was treated besides the Sumatra oil. The lubricating factory worked the whole year through, and the drum factory also.

### Dordtsche Petroleum Company.

Wonokromo.—The improvements of the distillation and refinery plants, commenced in 1912, were completed during the year under report, and in consequence hereof it was possible to treat a larger production.

The paraffin factory at Tjepoe during the preceding year produced 5,200 tons of paraffin. Part of this was used for candles and batik wax.

Ceram.—The work on this island, which is being done by us in co-operation with others, was energetically pursued, but has up till now not yet proceeded so far that definite indications exist as to the future of Ceram as an oil-producing territory: we have, however, confidence in ultimate success.

Mandoel.—We made an agreement with the "Oost Borneo Cultuur-, Handel- en Mijnbouw Maatschappij" for the exploration of licences and the eventual exploitation of concessions in the island of Mandoel.

Sebatik.—An agreement was made with the "British North Borneo Petroleum Syndicate" for the exploration and eventual exploitation of the island of Sebatik. The first boring was started.

Workmen.—Notwithstanding increased wages and higher recruiting fees, the supply of Javanese coolies was insufficient, especially for Balikpapan, where constant extensions necessitate a greater number of hands. The supply of Chinese workmen had therefore to be increased.

Medical Service.—The extensive business at Balikpapan necessitates continuous supply of native workmen. In connection with the contagious diseases, now and then occurring among these people, and with a view to cases of plague in Java, it was deemed necessary to be able to make bacteriological researches on a large scale in order to determine those diseases. The medical service therefore was increased by the appointment of a medical man, specially trained for this work.

THE FLEET.—The fleets of the different transport companies in which we are interested, were reinforced this year by the delivery of several vessels under construction. The total carrying capacity amounts at present to 214,100 tons in bulk, and 498,000 cases of packed oil. The following ships were added, viz., the steamers "Donax" and "Elburna," with a loading capacity of respectively 4,900 and 7,000 tons, the "Cyrena" and the "Physa," with a loading capacity of respectively 63,500 and 150,000 cases; further the motor-tankships "Artemis" and "Ares," both with a loading capacity of 4,650 tons.

The two last-named tankships, like the "Juno" now trading for more than a year, have given complete satisfaction, and the expectations which we had of these motor vessels prove to be well founded.

We are firmly convinced that a great future exists for motorships. This will be of great influence on the oil business in general, and especially on ours, as we are enabled by our extensive organisation to supply motor-ships throughout the world with the necessary fuel.

Four motor-tankships and two steamers are still being built for us. We would already at present contemplate the further extension of the motor-tankfleet, and even replace some of our steamers by motor-tankships, were it not that the builders which can supply us with the desired type, are so overburdened with work that the delivery of a motor-ship would take twice as long as that of a steamer.

The results of our freight business are satisfactory, and this is partly due to profitable charters, which we have been able to close, and which, in connection with the freights charged by us as third parties, have left a considerable profit.

PRICES.—The prices for nearly all products were considerably higher than last year. Moreover, we have been able to realise great savings through the extension of the distributing branch, whereby the net results have benefited. The only product which did not participate in the amelioration of prices was paraffin wax.

INSURANCE.—The insurance business of the Bataafsche Petroleum Maatschappij, which at present, besides the insurance for own risk, comprises also that of several other companies, has, during the year under report, after deducting all costs of re-insurance, and after payment of all losses, left a net balance of more than f2,904,000.—. We have deemed it advisable to carry over nearly the whole of this amount towards the strengthening of the reserve for risks. The insurance fund of the Bataafsche is thereby, and by the addition of the interest accrued, brought up to f9,260,000.—.

RESULTS OF OUR BUSINESS.—The results of our business, owing to the important extensions and the exceptionally high prices, are extremely favourable for the year under report. The Bataafsche Petroleum Maatschappij, which paid for the year 1912 f19,950,000.—, is now in a position to pay f31,500,000.—, representing 22½ per cent. on its capital of f140.000,000.—.

The Anglo-Saxon has besides from the various favourable circumstances related above under the heading "The Fleet," during last year also reaped part of the profits of the important capital expenditures mentioned above. That company now pays for the past year £870.000, as against £645,00 in 1912.

The total amount of profits of our Company for the past year is f30,169,991.42.

According to the accounts given overleaf, this amount of profit allows payment of 4 per cent. on the preference shares, 4½ per cent. on the priority shares, and 48 per cent. on the ordinary shares, of which 15 per cent. has already been distributed as interim-dividend, leaving a balance of f889,190.51, which we propose to carry to new account.

The Hague, May, 1914.

H. W. A. DETERDING,
General Managing Director.

H. LOUDON,
A. J. COHEN STUART,
Managing Directors.

## BALANCE SHEET on the 31st December, 1913.

Dr. LIABILITIES.

| | | |
|---|---|---|
| To Share Capital authorised … … … … | f 70,000,000 | — |
| ,, Preference Share Capital … … … … | f 1,500,000 | — |
| ,, Priority Share Capital … … … … | f 28 500,000 | — |
| ,, Reserved from the proceeds of 237,000 shares "Shell" Co. … … … … … | f 12,474,495 | — |
| ,, Unclaimed Dividends … … … … | f 25,080 | — |
| ,, Unclaimed Dividends on priority shares … | f 27,601 | 50 |
| ,, Creditors … … … … … … | f 2,720,483 | 50 |
| ,, Reserve in accordance with Art. 4 of the Statutes … … … … … … | f 53,412,151 | 90 |
| ,, Undivided Dividend brought forward from 1912 … … … … … … | f 498,795 | 50 |
| ,, Relief Fund … … … … … … | f 48 309 | 70 |
| ,, Profit and Loss Account … … … … | f 30,169,991 | 42 |
| | f199,376,908 | 52 |

Cr. ASSETS.

| | | |
|---|---|---|
| By Unissued Shares … … … … … | f 13,354,600 | — |
| ,, Shares of the Bataafsche Petr. Mij. and Anglo-Saxon Petr. Co., Ltd. … … | f 77,558,800 | — |
| ,, Shares of the Shell Transport and Trading Co., Ltd. … … … … … | f 14,512,129 | 01 |
| ,, Shares of the Société Commerciale et Industr. de Naphte Caspienne et de la Mer Noire … … … … … | f 10,219,500 | — |
| ,, Shares of the Société Commerciale et Industr. de Naphte "Mazout" … … | f 10,264,870 | 13 |
| ,, Option on £250,000 Shares of the Shell Transport and Trading Co., Ltd. … | f 1 | — |
| ,, Office Buildings … … … … … | f 170,000 | — |
| ,, Cash in hand and at Bankers … … … | f 39,858,547 | 11 |
| ,, Securities … … … … … … | f 4,995,001 | 10 |
| ,, Debtors … … … … … … … | f 27,746,045 | 96 |
| ,, Interest Account … … … … .. | f 56,164 | 21 |
| ,, Dividend on Priority Shares … … … | f 641,250 | — |
| | f199,376,908 | 52 |

## PROFIT AND LOSS ACCOUNT for 1913.

Cr. PROFIT.

| | | |
|---|---|---|
| To Dividend from the Bataafsche Petr. Mij and Anglo-Saxon Petr. Co., Ltd. .. | f 25,219,916 | 25 |
| ,, Dividend from the Shell Transport and Trading Co., Ltd. … … … … | f 1,343,743 | 32 |
| ,, Dividend from the Soc. Commerc. et Industr. de Naphte Caspienne et de la Mer Noire (Bnito) … … .. … … | f 959,364 | — |
| ,, Dividend from the Soc. Commerc. et Industr. de Naphte "Mazout" … … | f 1,151,236 | 80 |
| ,, Interest, difference in exchange … … | f 1,312,366 | 56 |
| ,, Exploitation of Office Buildings … … | f 47,289 | 65 |
| ,, Sundry profits … … … … … .. | f 518,244 | 53 |
| ,, Superannuated Dividends, 1906, Nos. 3,895 and 4,252 … … … … .. … | f 1,460 | — |
| | f 30,553,621 | 11 |

Dr. LOSS.

| | | |
|---|---|---|
| To Loss on Market Price of Dutch Government Bonds … … … … … … | f 87,500 | — |
| ,, Written off on Shares in local undertakings in Netherlands India … … … | f 4,999 | — |
| ,, Expenses for Printing and Stamping new Shares … … … … … … | f 6.865 | 52 |
| ,, Taxes on priority Shares due in France … | f 167,643 | 93 |
| ,, Administration and other Expenses … … | f 116,621 | 24 |
| ,, Balance carried to Balance Sheet … … | f 30,169,991 | 42 |
| | f 30.553,621 | 11 |

The Hague, June, 1914.

H. W. A. DETERDING,
General Managing Director.

Jhr. H. LOUDON,
A. J. COHEN STUART, L.L.D.,
Managing Directors.

The Board of Commissaires:
A. CAPADOSE, L.L.D.
Jhr. C. H. A. VAN DER WIJCK.
G. C. B. DUNLOP.
J. W. IJZERMAN.
C. J. K. VAN AALST.
F. LANE.
J. LUDEN, L.L.D.

## EXPLANATION of the BALANCE SHEET for 1913.

### LIABILITIES.

| | | |
|---|---|---|
| SHARE CAPITAL ... ... ... ... ... | f 70,000,000 | — |
| Issued according to previous Balance Sheet ... | f 52,317,000 | — |
| Issued in October, 1913, 274 shares of f1,000.— and 84 shares of f100.— ... ... ... | f 282,400 | — |
| at the rate of 562½ per cent. in order to obtain 249,900 ordinary shares of £1 each, on which 10s. 6d. has been paid, and 294 fully-paid up deferred shares of £1 each in the 's-Gravenhage Association, Ltd. | | |
| These shares were transferred at cost price to the Anglo-Saxon Petroleum Co., Ltd. | | |
| Further, we issued on December 1st, 1913, 40,460 sub-shares of f100.—, each at the rate of 620 per cent. ... ... ... ... | f 4,046,000 | — |
| Total amount issued ... ... ... | f 56,645,400 | — |
| UNISSUED SHARES ... ... ... ... ... | f 13,354,600 | — |
| | f 70,000,000 | — |
| PREFERENCE SHARE CAPITAL remains at ... ... ... ... ... ... ... | f 1,500,000 | — |
| PRIORITY SHARE CAPITAL remains at ... | f 28,500.000 | — |
| RESERVED FROM THE PROCEEDS OF 237,000 "SHELL" SHARES ... ... (See explanation on page 36.) | f 12,474,495 | — |
| UNCLAIMED DIVIDENDS.—For dividends 1908, 1910, 1911, and 1912 ... ... | f 25,080 | — |
| Two dividend-coupons, 1906, of f730.— each were cancelled on July 5th, 1913, and will therefore not be paid out. | | |
| UNCLAIMED DIVIDENDS ON PRIORITY SHARES.—For dividend 1911-13 ... | f 27,601 | 50 |
| CREDITORS.—For some debts to be settled in 1914 ... ... ... ... ... ... | f 2,720,483 | 50 |
| RESERVE IN ACCORDANCE WITH ART. 4 OF THE STATUTES, amounted, according to the previous balance, to | f 34,740,227 | 52 |
| To this must be added the value above par. ascribed to the 274 shares of f1,000.— and the 84 shares of f100.— delivered by us for the taking over of the shares in the 's-Gravenhage Association ... | f 1,305,284 | 92 |
| and further the premium on our December issue, less all costs of emission ... ... | f 19,631,388 | 60 |
| Total ... ... ... ... ... | f 55,676,901 | 04 |
| This amount is decreased by the sum due to our Directors in accordance with the Resolution of the General Meeting of Shareholders of June 23rd, 1913 ... | f 2,264,749 | 14 |
| Rest .. ... ... ... ... ... ... | f 53,412,151 | 90 |

| | | |
|---|---|---|
| RELIEF FUND. | | |
| Balance according to previous Balance Sheet ... | f 46,849 | 11 |
| Accrued interest ... ... ... ... ... ... | f 1,914 | 53 |
| | f 48,763 | 64 |
| Paid out ... ... ... ... ... ... ... ... | f 453, | 94 |
| Balance per December 31st, 1913 ... ... ... | f 48,300 | 70 |

### ASSETS.

| | | |
|---|---|---|
| SHARES OF THE BATAAFSCHE PETROLEUM MAATSCHAPPIJ AND OF THE ANGLO-SAXON PETROLEUM CO., LTD.—Our holding in these Companies remained unaltered at respectively ... ... ... ... ... ... | f 84,000,000 | — |
| and £3,600,000 ... ... ... ... | f 43,200,000 | — |
| Total nominal ... ... ... ... ... | f127,200,000 | — |
| Valued in our Balance Sheet at ... ... ... | f 77,558,800 | — |

| | | | |
|---|---|---|---|
| SHARES OF THE SHELL TRANSPORT & TRADING CO., LTD. — On December 31st, 1912, our holding amounted to 500,000 shares of £1 each —£500,000, which after deduction of the reserve made of f12,474,495 appear at ... ... ... | £320,702 8 4 | or f3,885,273 | 61 |
| Out of the last issue we obtained 26,454 shares of £1 at 66 sh. ... ... ... | £87,298 4 0 | or f1,058,542 | 48 |
| Total 526,454 shares ... ... | £408,000 12 4 | or f4,943,816 | 09 |
| Minus 239,784 shares at par | £239,784 0 0 | or f2,906,182 | 08 |

delivered to the Anglo-Saxon Petr. Co., Ltd., for exchange against a like number of shares in the Californian Oilfields, Ltd., so that there remain in our holding 286,670 shares at a value of £168,216, 12s. 4d. or f2,037,634.01 or about 58 $\frac{11}{16}$ per cent. after deduction of the reserve made.

| | | |
|---|---|---|
| SHARES OF THE SOCIETE COMMERCIALE ET INDUSTRIELLE DE NAPHTE CASPIENNE ET DE LA MER NOIRE (BNITO).—For 5,400 shares at R.5,400,000— at 150 per cent. R.8,100,000 — or ... ... ... | f 10,212,500 | — |
| SHARES OF THE SOCIETE COMMERCIALE ET INDUSTRIELLE DE NAPHTE "MAZOUT."—For 25,920 shares at R.6,480,000.— at 125 per cent. R.8,100,000 — or ... ... ... | f 10,264,870 | 13 |
| CASH IN HAND AND AT BANKERS. | | |
| For the cash in hand and the outstanding amount on loan against securities (prolongatie) and at bankers on December 31st, 1913 ... ... ... ... ... | f 39,858,547 | 11 |
| SECURITIES. | | |
| For the value of f5,000,000.— nominal 3½ per cent. debentures of Ned. Werk. Schuld at the market rate of December 31st, 1913 ... ... ... ... ... | f 4,500,000 | — |
| For the value of f500,000.— 4½ per cent debentures Kon. Holl. Lloyd at 99 per cent. | f 495,000 | — |
| Shares in local undertakings in Netherlands India ... ... ... ... ... ... | f 1 | 10 |
| | f 4,995,001 | 10 |
| DEBTORS. | | |
| For our claims per December 31st, 1913, on balance dividends of the Bataafsche, Anglo-Saxon, Shell, Bnito, Mazout for 1913, and some other items, which have been settled in 1914 ... ... ... ... | f 27,746,045 | 96 |
| INTEREST ACCOUNT. | | |
| Interest to be settled in 1914 ... ... ... | f 56,164 | 21 |
| DIVIDEND PRIORITY SHARES. | | |
| For the dividend which became due on July 15th, 1913 ... ... .. ... ... | f 641,250 | — |

THE
# Petroleum Review

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Anglo-Mexican Petroleum Products Co., Ltd., Finsbury Court, Finsbury Pavement, London, E.C.
British Petroleum Co., Ltd., 22, Fenchurch Street, London, E.C.
Homelight Oil Co., Ltd., 14, St. Mary Axe, E.C.
The Texas Co., Billiter Buildings, 22, Billiter Street, E.C.

### LIQUID FUEL BURNERS.

Kermode's Liquid Fuel System, 35, The Temple, Dale Street, Liverpool.

### LIQUID FUEL IMPORTERS.

The Anglo-American Oil Co., Ltd., 36 & 38, Queen Anne's Gate, London, S.W.
Anglo-Mexican Petroleum Products Co., Ltd., Finsbury Court, Finsbury Pavement, London, E.C.
British Petroleum Co., Ltd., 22, Fenchurch Street, London, E.C.
Lubricating and Fuel Oils, Ltd., 101 Leadenhall Street, London, E.C.

### LIQUID FUEL INSTALLATIONS.

The Wallsend Slipway and Engineering Co., Ltd., Wallsend-on-Tyne.

### LUBRICATING OILS.

Anglo-American Oil Co., Ltd., 36 & 38, Queen Anne's Gate, London, S.W.
Arnott, James, & Sons, Ltd., Dean Street, Newcastle-on-Tyne.
Bramwell, Fern & Co., London, Manchester and Liverpool.

### LUBRICATING OILS—*continued.*

Continental Petroleum Co., 13, Rue des Douze Mois, Antwerp.
Crew Levick Co., Irwell Chambers, W. Liverpool.
Cudahy Refining Company, Harris Trust Building, Chicago, Ill. Exclusive Export Agents : Terracini & Cie, 17, Boulevard Haussmann, Paris, and 63, rue Ommeganck, Antwerp.
Gulf Refining Co., Frick Building Annex, Pittsburgh, Pa., U.S.A.
Lubricating and Fuel Oils, Ltd., 101, Leadenhall Street, London, E.C.
Meade, King, Robinson & Co., 22, Water Street, Liverpool, and Manchester.
The Texas Co., Billiter Buildings, 22, Billiter Street, E.C.
Waverley Oil Work Co., Pittsburgh, Pa., U.S.A.
Worthington & Boler, 30, Chapel Street, Liverpool, and 17, Philpot Lane, London.

### OIL BROKERS.

Benjamin & Co., 61, St. Mary Axe, E.C.
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Cudahy Refining Company, Harris Trust Building, Chicago, Ill. Exclusive Export Agents : Terracini & Cie, 17, Boulevard Haussmann, Paris, and 63, rue Ommeganck, Antwerp.
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Anglo-Maikop Corporation, Ltd., 7, Angel Court, E.C.
Anglo-Mexican Petroleum Products Co., Ltd., Finsbury Court, Finsbury Pavement, London, E.C.
Arnott, James, & Sons, Ltd., Dean Street, Newcastle-on-Tyne.
Continental Petroleum Co., 13, Rue des Douze Mois, Antwerp.
Crew Levick Co., Irwell Chambers, W. Liverpool.
Cudahy Refining Company, Harris Trust Building, Chicago, Ill. Exclusive Export Agents : Terracini & Cie, 17, Boulevard Haussmann, Paris, and 63, rue Ommeganck, Antwerp.
Homelight Oil Co., Ltd., 14-20, St. Mary Axe. E.C.
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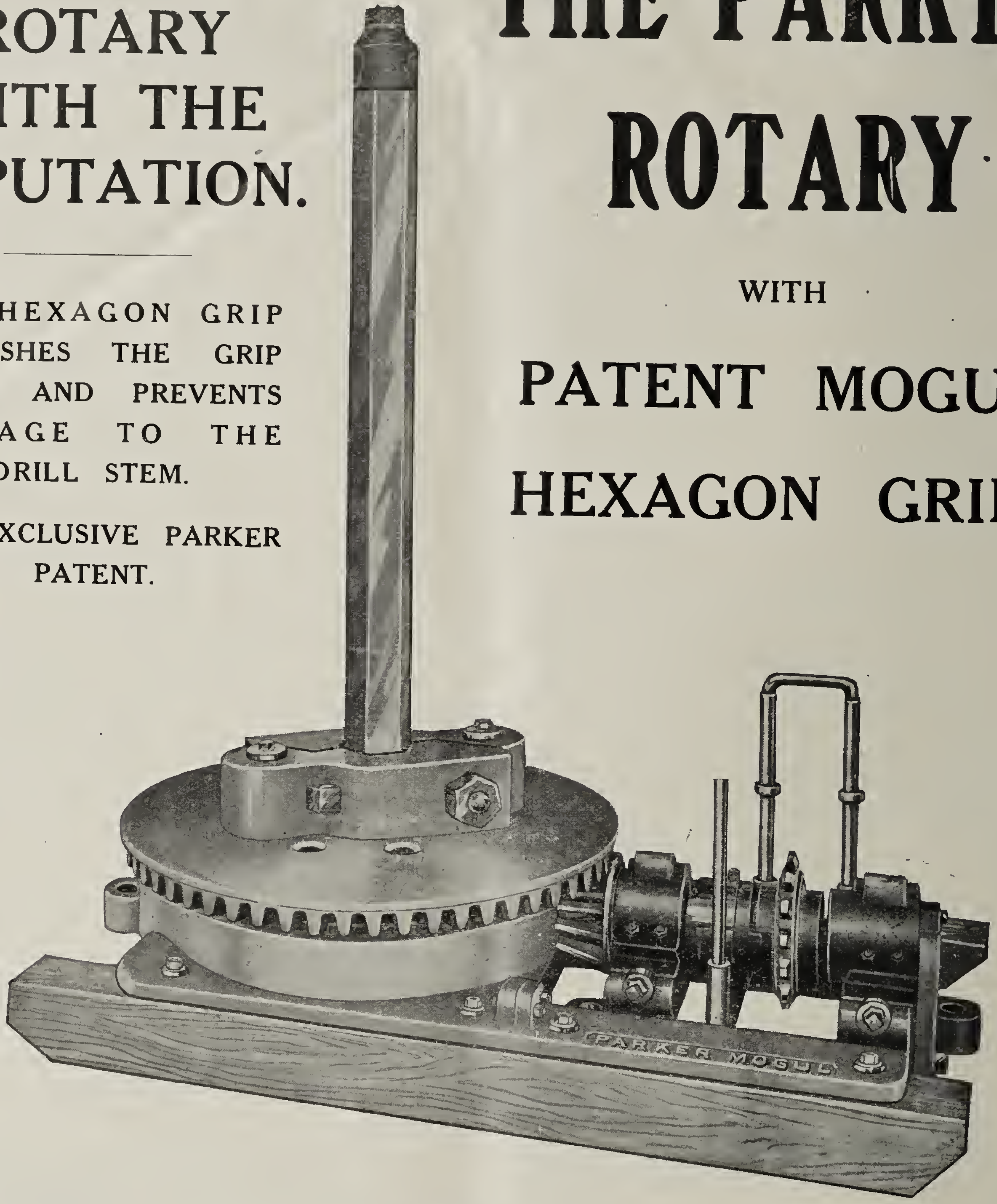

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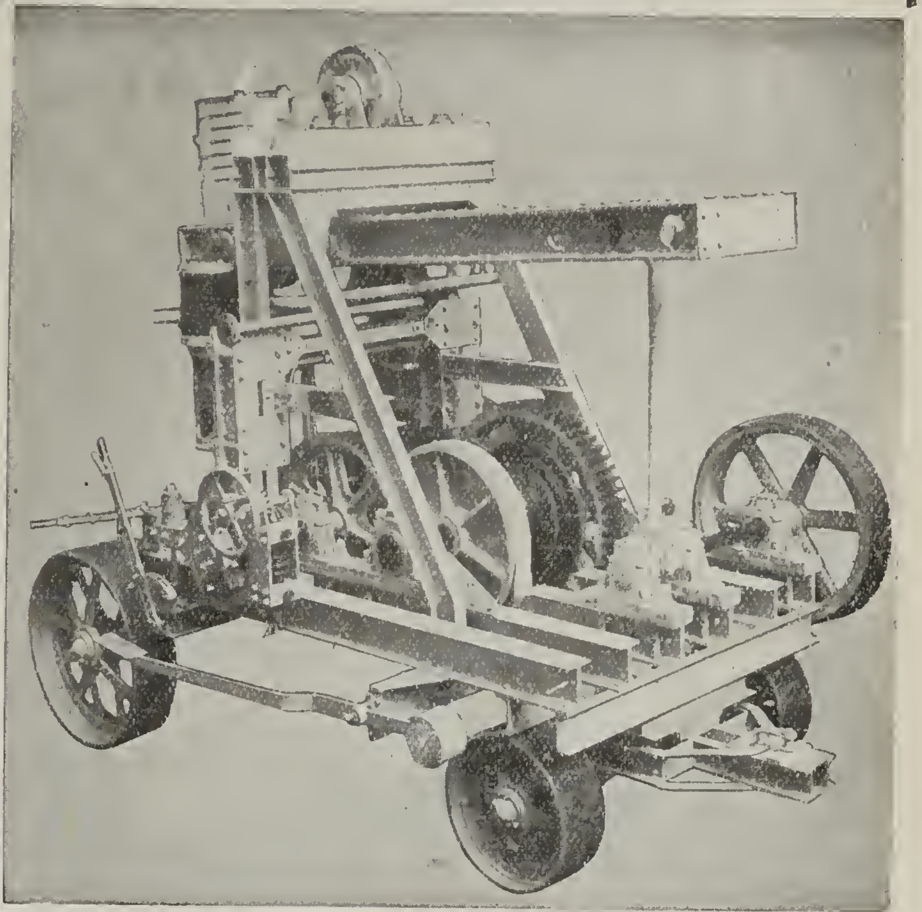

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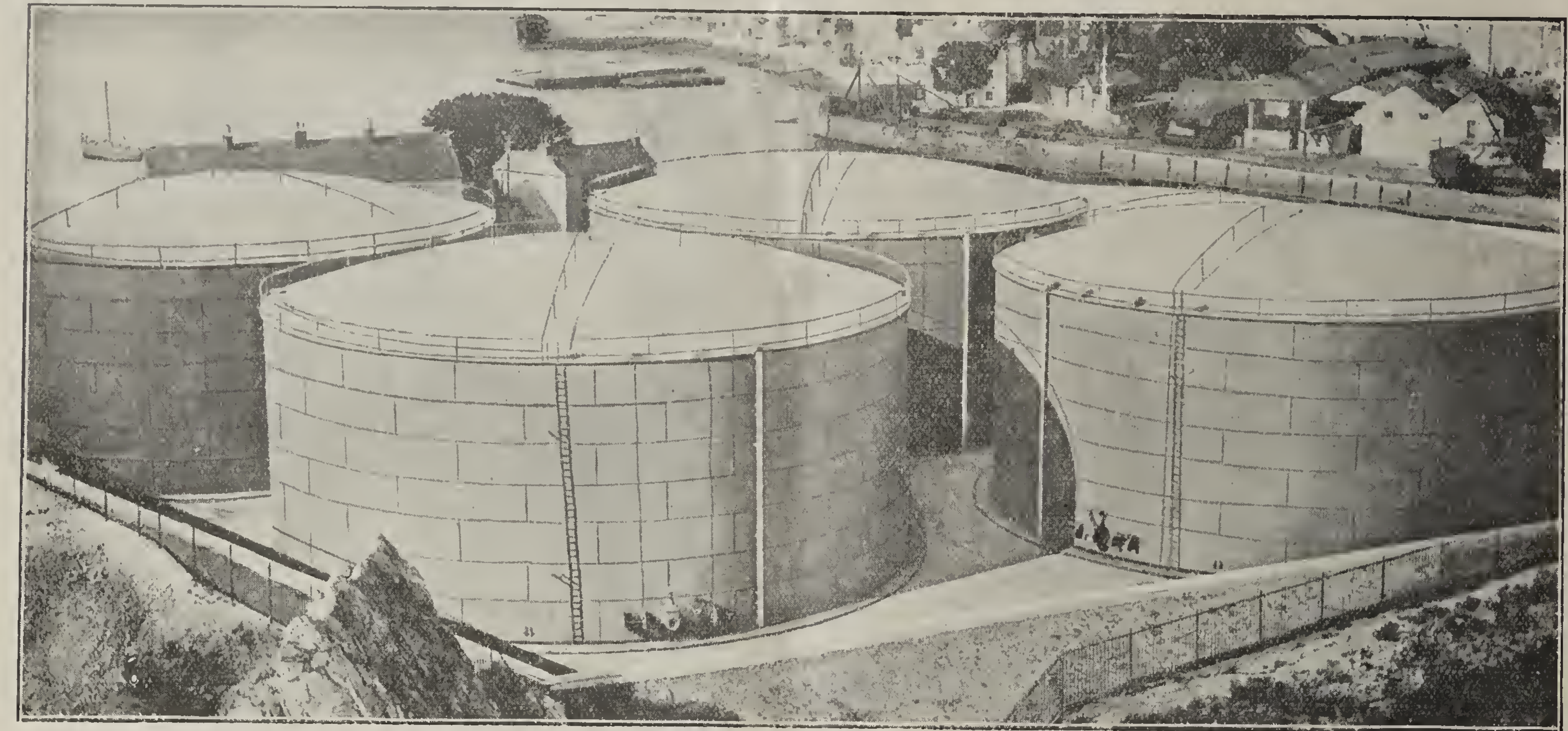

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